
D-7000 HPLC System Manager

Getting Started

Read and Keep This Manual

- **Read carefully and understand the safety instructions in this manual before you start using the product.**
- **Keep this manual at hand for reference.**

D-7000 HPLC System Manager

Getting Started

Version 5.0

Open README File

Please open the README file included in the floppy disk accompanying the product and read it carefully before you start using the D-7000 HPLC System Manager software and the Utility software.

Disclaimer

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Preface

The intent of this document is to provide a quick introduction to procedures for using and operating the D-7000 HPLC Manager program. The general organization of the document follows:

1. Starting and Quitting Windows
2. Starting and Quitting the D-7000 HSM Program
3. Setting Up Administrative Functions
4. Operating the D-7000 HSM

This document accompanies the following manuals for your Hitachi D-7000 High Performance Liquid Chromatography System:

- D-7000 HPLC System Manager User Manual
(P/N 810-9442)
- D-7000 HPLC System Manager Installation Manual
(P/N 810-9432)
- L-7455 Diode Array Detector Installation and Maintenance Manual
(P/N 810-9371)
- D-7000/D-6000 Interface Module Installation Manual
(P/N 810-9471)

The instructional content of this manual is based on the following assumptions:

- You understand the fundamentals of liquid chromatography.
- You are familiar with the operation of a computer that used the Microsoft Windows 2000 program.


If you require further information on Windows 2000, refer to the Microsoft documentation.


SAFETY SUMMARY


General Safety Guidelines


Before operating the product, read the following instructions carefully:

- Follow all the operating procedures provided in this manual.
- Pay special attention to and follow all the hazard warnings on the product and in the manual. Failure to do so can cause injury to yourself or damage to the product.
- The hazard warning which appear on the warning labels on the product or in the manual have one of the following alert headings consisting of an alert symbol and a signal word, **DANGER**, **WARNING**, or **CAUTION**.

 **DANGER:** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING:** indicates a potentially hazardous situation which, if not avoided, can result in death or serious injury.

 **CAUTION:** indicates a hazardous situation which, if not avoided, will or can result in minor moderate injury, or serious damage of product.

: The alert symbol shown left precedes every signal word for hazard warnings, and appears in safety related descriptions in the manual.

NOTE: The signal word **NOTE** is used to present warnings which are not directly related to personal injury hazards.

- Do not perform any operation or action in any way other than as provided in this manual. When in doubt, call the designated field engineer.



SAFETY SUMMARY (Continued)



Caution Statements



CAUTION

Do not switch power off on computer when you want to quit Windows 2000 or you could lose data. Instead, choose one of the following methods:

- Open **Start** menu and select **Shutdown**.
- When the message

It is now safe to turn off your computer.

is displayed on your screen, turn off your computer.

(Section 1, page 1)



SAFETY SUMMARY (Continued)



CAUTION

If any program/data is damaged suddenly or an unexpected operation/screen is encountered, the personal computer may be infected by a computer virus. Computer viruses are malicious programs that sneak into the personal computer to cause misbehavior or damage to data. And, a program designed to offer protection against computer viruses is called a vaccine program.

Possible causes of virus infection are:

- Downloading a virus-laden program through communication.
- Using a floppy disk or other storage medium infected by a virus.

Note also that once the personal computer is infected by virus, it may spread to other computers via communication or storage medium. Never use a program or storage medium that is suspected of containing a virus.

If there is a possibility of virus infection, check for a virus using a vaccine program. Note, however, that some kinds of vaccine programs cannot eradicate particular viruses. In such a case, be sure to make a backup of the hard disk.

The user is requested to prepare a vaccine program and carry out virus removal.

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1 Starting and Quitting Programs

1.1 Starting and Quitting Windows 2000

To Start Windows 2000:

1. Apply power to the computer.
2. If the **Welcome to Windows** dialog appears, press Ctrl+Alt+Del keys simultaneously. (This dialog may not be displayed.)
3. When the **Log On to Windows** dialog appears, enter your user name and password in the **User Name** and **Password** text boxes. Click on **OK**.
4. Click on the **Start** button to open the **Start** menu, from where you can open various programs.

To Quit Windows 2000:



Caution

Do not switch power off on the computer when you want to quit Windows 2000 or you could lose data. Instead, perform the steps instructed in this manual.

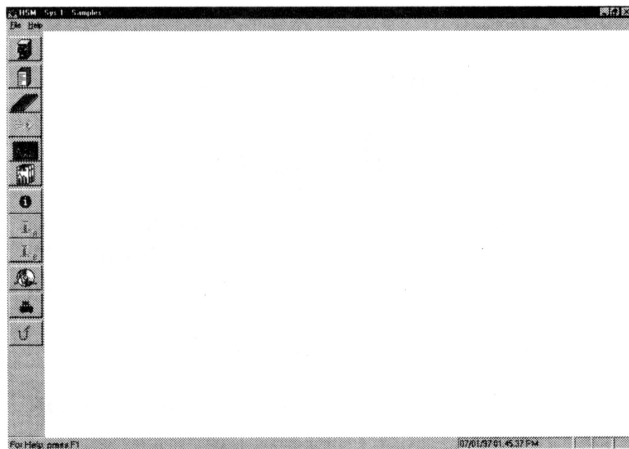
1. Open **Start** menu and select **Shut Down**.
2. In the drop-down list, select **Shut down** and click **OK**.
3. When the following message is displayed, turn off your computer.
It is now safe to turn off your computer.

1.2 Starting and Quitting D-7000 HSM

1.2.1 Single-System Version of D-7000 HSM

To start single-system version of D-7000 HSM:

1. Click the Windows **Start** button to display the **Start** menu.
2. Highlight **Programs**. The program menu opens.
3. Highlight **D-7000 HSM**. The D-7000 application menu opens.
4. Click **D-7000 HSM Manager**. The D-7000 HSM main screen appears as shown below.



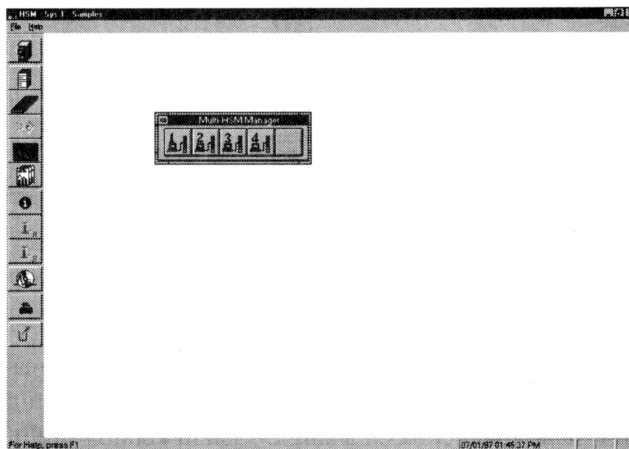
To quit the single-system version of D-7000 HSM:

1. From the menu bar, select **File**. The **File** menu appears.
2. Select **Exit**. The HSM closes automatically.

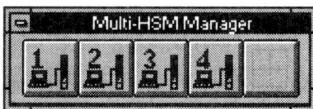
1.2.2 Multi-System Version of D-7000 HSM

To start multi-system version of D-7000 HSM:

1. Click the Windows **Start** button to display the **Start** menu.
2. Highlight **Programs**. The program menu opens.
3. Highlight **D-7000 HSM**. The D-7000 application menu opens.
4. Click **D-7000 Multi-HSM Manager**. The D-7000 HSM main screen appears as shown below.

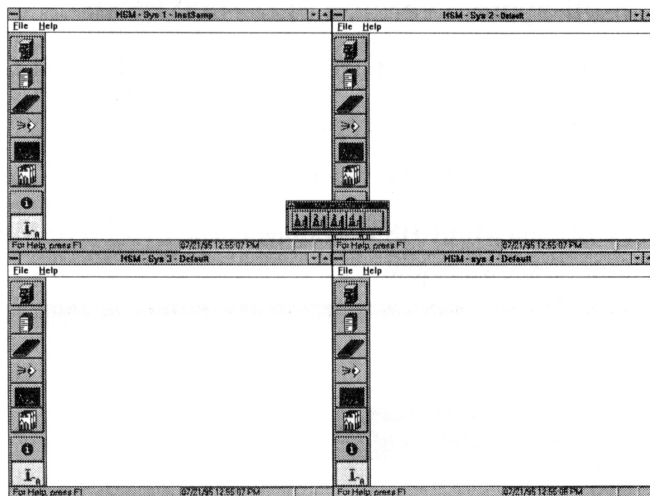


Note the floating tool bar in the display area.



5. Four system icons (1 through 4) and one tile icon are displayed on the floating tool bar. The activated system icons indicate which HPLC systems are set up in D-7000 HSM Administration.
6. Click on an active System icon, the corresponding HSM screen appears.

7. Click on the Tile icon. If four systems are running, the main screens are displayed in tile mode.



8. To maximize one system screen, either click on the display area of the desired screen or click on the appropriate system icon.

From the maximized screen, the Method Setup, Sample Table Setup, Data Acquisition, Reprocess Data, and Report Generation functions are available in the same manner as on a single-system version of the D-7000 HSM.

To quit the multi-system version of D-7000 HSM:

1. From the menu bar, select **File**. The **File** menu appears.
2. Select **Exit**. The currently active system closes automatically.
3. Repeat Steps 1 and 2 for each active system.
4. Close the D-7000 Multi-HSM Manager floating tool bar by clicking the X button on the top-right corner of the floating box.
5. When the confirmation message, "*Exit Multi-HSM Manager?*", appears, click **Yes**.

2 Setting Up Administrative Functions

Note: Only an authorized D-7000 Administrator has access to the HSM Administration program.

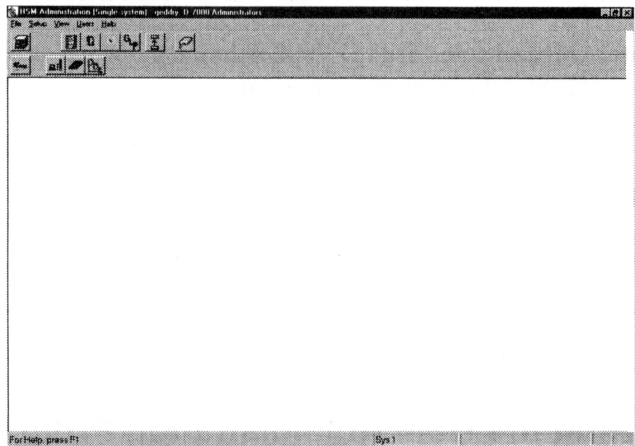
HSM Administrative program functions include setting up the following:

- **D-7000 HSM Configuration**
- **Good Laboratory Pactices (GLP)**
- **User Groups**
- **Application Groups**

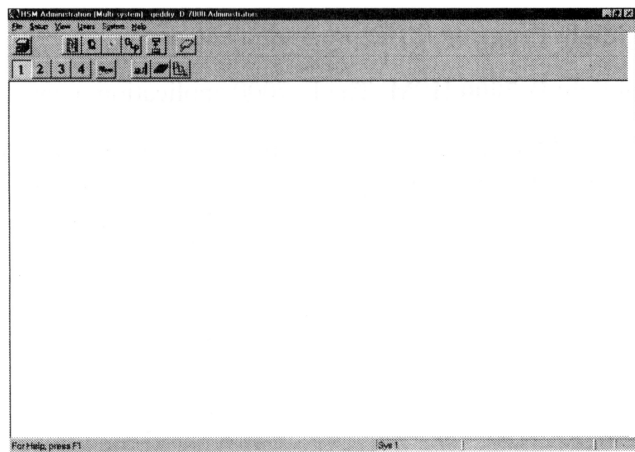
2.1 Starting the HSM Administration Program

1. Click the Windows **Start** button to display the **Start** menu.
2. Highlight **Programs**. The program menu opens.
3. Highlight **D-7000 HSM**. The D-7000 application menu opens.
4. Click **D-7000 HSM_Administration**. The main screen of the HSM Administration program appears. The menu bar and tool bars differ slightly depending on whether the single-system or multi-system version of the HSM Administration program is active.

Single-System main screen










Multi-System main screen








2.2 Tool Bar Icons

The following tool bar icons and menus are available:

| Icon | Name | Menu>Command |
|---|--------------------------|-------------------------|
|  | Application Manager | Setup>Application |
|  | View Hardware Log File | View>View Hardware Log |
|  | Local Users and Groups | Users > User and Groups |
|  | Standard Units Setup | Setup>Standard Units |
|  | GLP Setup | Setup>GLP Options |
|  | Remote Networking Setup | Setup>Remote Networking |
|  | Communication Port Setup | Setup>COM Ports Setup |

Setting Up Administrative Functions


Tool Bar Icons

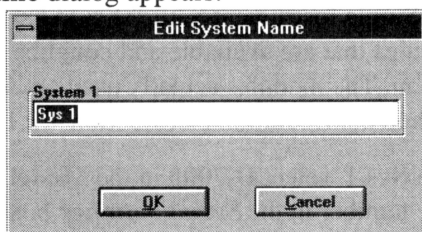
| Icon | Name | Menu>Command |
|---|-------------------------------|------------------------------|
|  (Only available on Multi-System Version) | Select Systems 1, 2, 3, and 4 | System>System 1, 2, 3, and 4 |
|  | Edit System Name | System>Edit System Name |
|  | Single Instrument Setup | Setup>Single Instrument |
|  | Rack Parameters Setup | Setup>Rack Parameters |
|  | DDE Graphs Setup | Setup>DDE Graphs |


2.3 Setting Up a D-7000 HSM Configuration

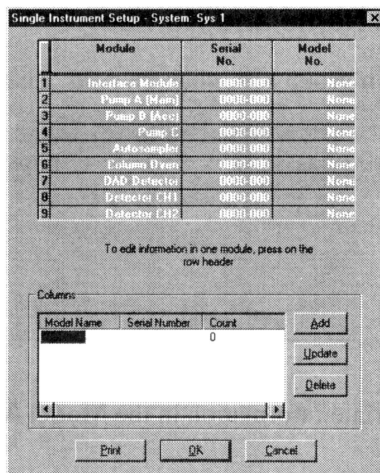
To enter serial and model numbers:

Follow these steps to configure each system in a multi-system version of the D-7000 HSM program. To configure a single-system version of the D-7000 HSM program, skip steps 1 and 2.

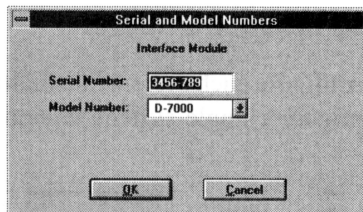
1. First click on **1** of buttons **1 2 3 4**; then, click on . The **Edit System Name** dialog appears.



2. Type the system name (e.g., **Sys 1**) in the text box and click on **OK**.
3. Click on . The **Single Instrument Setup** dialog appears.



4. In the Module list group, click on the number **1** in the first row of the red-numbered column. The **Serial and Model Numbers** dialog appears.

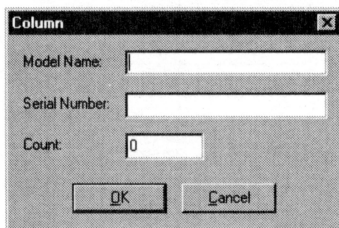


Note: The Single Instrument Setup should list all the HPLC modules that are available and could be used within a system. The modules actually used are selected within the Method configuration (see Section 4.2.1).

5. For System Sys 1, select **D-7000** in the **Model Number** list box, enter the appropriate number in the **Serial Number** box, and click on **OK**.
6. In each of the succeeding rows of the Module list for System Sys 1, enter or change model or serial numbers using the process specified in Steps 3 and 4.

To Enter Column Name and Number:

1. In the **Column** group box, click on **Add**. The **Column** dialog opens.



2. Enter appropriate information in the **Model Name**, **Serial Number**, and **Count** boxes.

3. When all values are entered, click on **OK**. The focus returns to the **Single Instrument Setup** dialog. Click on OK to accept values and close the dialog.

2.4 Setting Up Administrative Functions for the D-7000 HSM Program

This section describes how to configure the administrative functions for the D-7000 HSM program. You will set up the following items in this order:

- **GLP options**
- **Users and user groups**
- **Applications**

The selection of the **Security** options in the **GLP Options** dialog will determine how the D-7000 HSM files and data will be protected.

- **Windows File Security**

The HSM program will use the Windows security definitions. The users/user groups and security levels will be the same as the definitions set up in the Windows operating system, and no further HSM internal security will be used. This is the default option.

- **NT D-7000 Groups**

You can assign D-7000 internal user groups to Windows users. Users who access HSM must belong to one of the D-7000 user groups and file access will be limited by the D-7000 user level granted to each user.

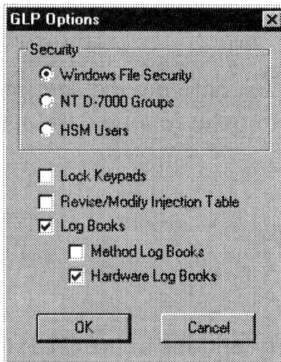
- **HSM Users**

You can set up HSM internal users, separate from Windows users. Users who access HSM must input the HSM user name and password. This option is recommended for multi-system HSM.

The default selection is **Windows File Security**. This section will describe how to set up the users/user groups and applications for the default option. Specifics for other two options will be described in Section 2.4.5, "When GLP Security is NT D-7000 Groups" and Section 2.4.6, "When GLP Security is HSM Users".

2.4.1 Setting Up GLP Options

1. Click on . The **GLP Options** dialog appears.



2. Mark the check boxes on the **GLP Options** dialog as below.
 - **Security: Windows File Security**
 - **Lock Keypads: No (checked off)**
 - **Revise/Modify Injection Table: No (checked off)**
 - **Log Books: Yes (checked on)**
 - **Method Log Books: No (checked off)**
 - **Hardware Log Books: Yes (checked on)**
3. Click **OK**.

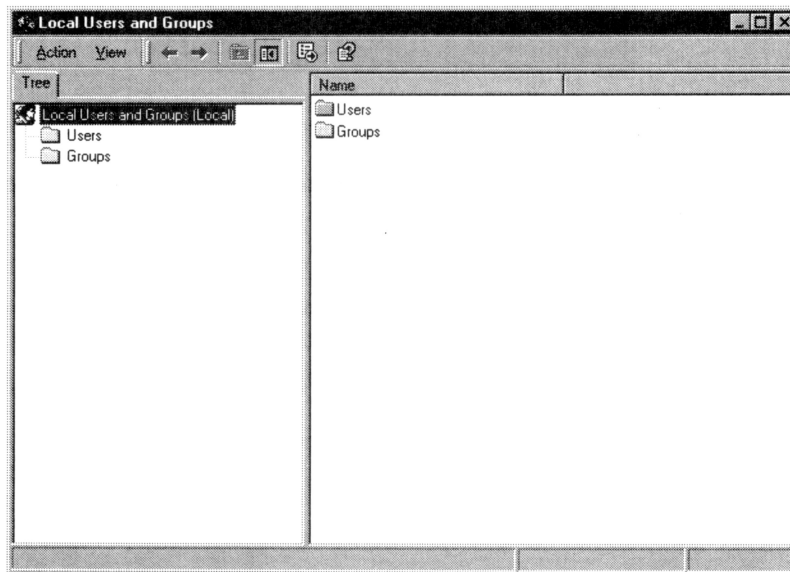
2.4.2 Setting Up Users/User Groups

Use the **Users and Groups** function under the **Users** menu to define user privileges. This function works basically in the same manner as with the Windows 2000 security functions.

To set up a new user group:

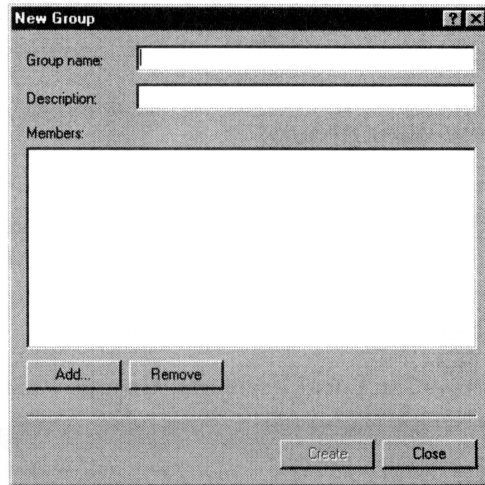
Note: Windows will have the default user groups (e.g., Administrators, Power Users, Guests). In general, the default grouping will be sufficient to manage HSM applications and files. Follow the steps below if you need to customize user groups specifically for the D-7000 users.

1. Click on . The **Local Users and Groups** window opens.



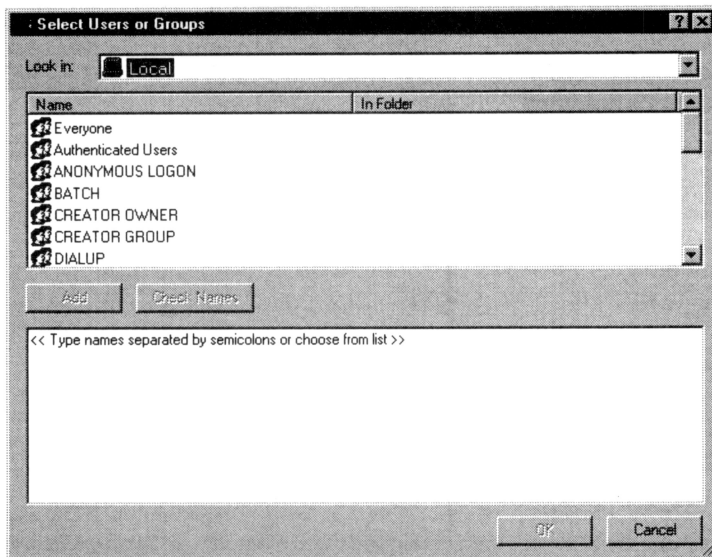
2. Highlight **Groups** and from the menu bar, select **Action**.

3. Select **New Group**. The **New Group** dialog opens.

The image shows a 'New Group' dialog box. It has a title bar with a question mark icon and a close button. Inside, there are three input fields: 'Group name:', 'Description:', and 'Members:'. The 'Members:' field is a large empty box. Below the 'Members:' field are two buttons: 'Add...' and 'Remove'. At the bottom right of the dialog are two buttons: 'Create' and 'Close'.

4. In the **Group Name** box, type in your desired group name.
5. In the **Description** box, type in a comment to describe the function of the new user group.

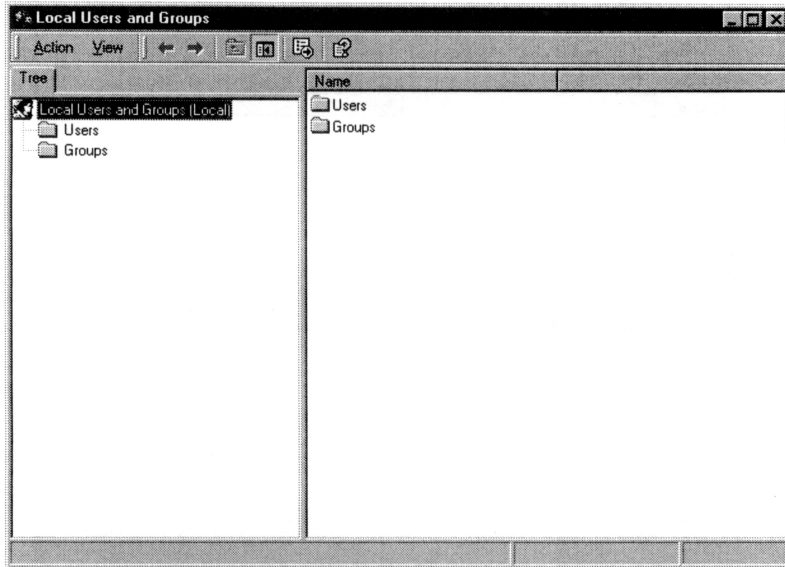
- To add members to the group, click **Add**. The **Select Users or Groups** dialog opens.



- Select (Highlight) the desired users or user groups from list and click **OK**. Focus returns to the **New Group** dialog.
- Click **Create** button.
- When finished entering group names, Click **Close**. Focus returns to **Local Users and Groups** window and group names are listed in the **Groups** folder.
- Click the **X** button at the top right corner of the dialog to close the **Local Users and Groups** window.

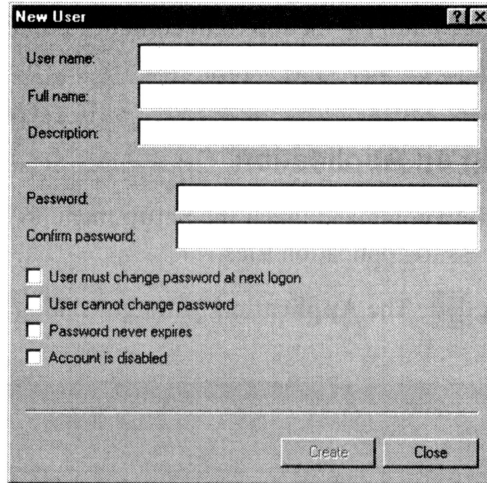
To set up a new user:

1. Click on . The Local Users and Groups window opens.



2. Highlight **Users** and from the menu bar, select **Action**.

3. Select **New User**. The **New User** dialog opens.



The image shows a 'New User' dialog box with the following fields and options:

- User name: [Text Box]
- Full name: [Text Box]
- Description: [Text Box]
- Password: [Text Box]
- Confirm password: [Text Box]
- ☐ User must change password at next logon
- ☐ User cannot change password
- ☐ Password never expires
- ☐ Account is disabled
- [Create] [Close]

4. Type the desired user name in the **User name** text box. Type the user's full name in the **Full name** text box and a description in the **Description** box.

Note: Do not use a period (.) in the Username text box as it causes a problem. You can use a period (.), however, in the Full Name text box.

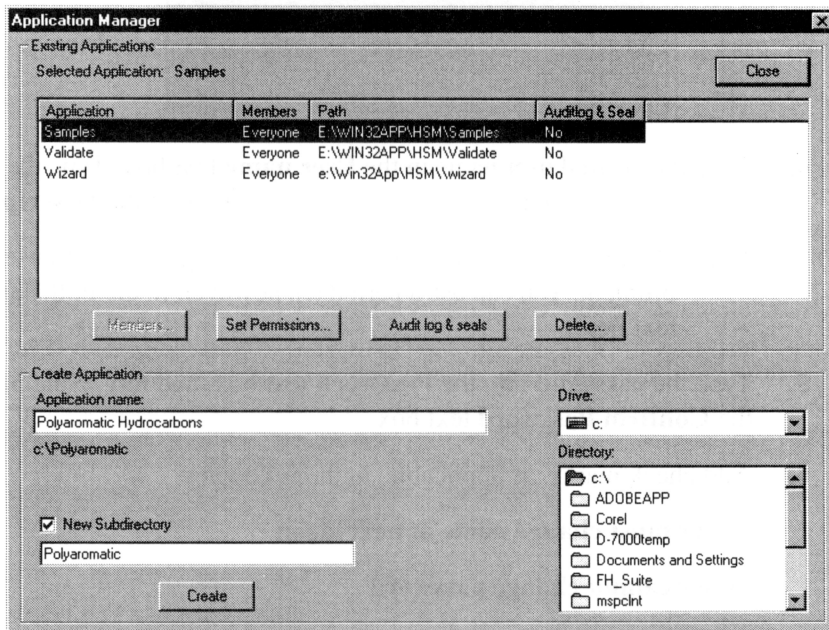
5. Type the password into the **Password** text box, and retype the password in the **Confirm Password** text box.
6. Add check marks, as applicable, to the following:
 - **User must change name at next logon**
 - **User cannot change password**
 - **Password never expires**
 - **Confirm password**
7. Click **Create** button.

8. Click **Close** and focus returns to **Local Users and Groups** window. The new memberships are shown listed in the **Users** folder.
9. Click the **X** button at the top right corner of the dialog to close the **Local Users and Groups** window.

2.4.3 Creating an Application

Use the **Application** command under the **Setup** menu to create applications and regulate user access to application files.

1. Click on . The **Application Manager** dialog appears.



2. In the **Application name** text box under the **Create Application** area, type **Polyaromatic Hydrocarbons**.

3. Mark the **New Subdirectory** check box. The first word in the application name (Polyaromatic) is automatically copied to the **New Subdirectory** text box.

4. In the **Drive** drop-down list, select the drive for the new application.

Note: If you want to restrict user privileges to the new application, create the application directory in a driver formatted in the NTFS file system. To check the file system of a drive, open Windows Explorer, click the right mouse button on the drive (e.g., C:) and select Properties.

5. In the **Directory** list box, select the directory path for the new application.

6. Click **Create**. The application is added to the **Existing Application** list.

Note: By default, the application is accessible to Everyone and no further protection will be applied. Use the Set Permissions function to set up more advanced security (see Section 2.4.4, "Restricting User Access to an Application").

2.4.4 Restricting User Access to an Application

Use the **Set Permissions** function in the **Application Manager** dialog to restrict privileges for individual users or user groups to access and modify application files.

To set permissions for each application:

1. In the Application Manager dialog, click **Set Permissions**. The **Application User Permission Setup** dialog opens
2. The user group names are first listed in the list box under **List Names From**. Click **Show Users** to list individual users' names.
3. Highlight the desired user/user group name in the list.
4. From the **Access Type** combo list, select the permission type to give to the selected user/user group. See the list below for the access types.

| | Data | Method |
|---------------------|--------------------|--------------------|
| Full Control | All (Full Control) | All (Full Control) |
| Developer | Read & Write | Mod (Modify) |
| Operator | Read & Write | Read |
| Read Only | Read | Read |

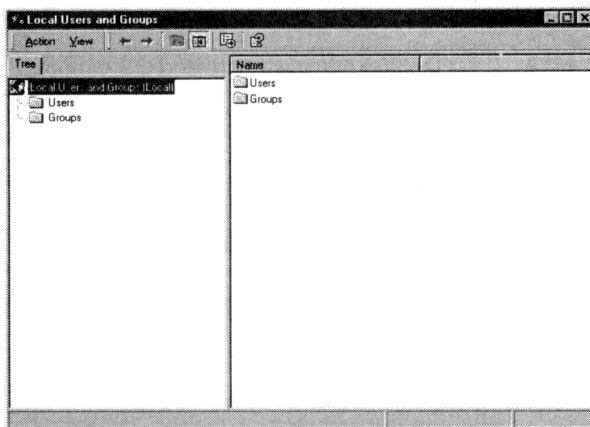
5. Click <<**Add**. The selected user/user name is now listed in the list box under **Application Name** with the selected permission type displayed in the **Access Type**, **Data**, and **Methods** columns.
6. Click **OK** to return to the **Application Manager** dialog.

2.4.5 When GLP Security is NT D-7000 Groups

If you have selected **NT D-7000 Groups** for the **Security** option in the **GLP Options** dialog, the users need to be assigned to at least one of the D-7000 user groups to use the D-7000 HSM program. You can set up the administrative and security functions by using the procedures in this section.

To set up Users/User Groups:

1. When you click , the **Local Users and Groups** dialog appears.



2. Referring to the instructions in Section 2.4.2, "Setting Up Users/User Groups", add the following user groups:

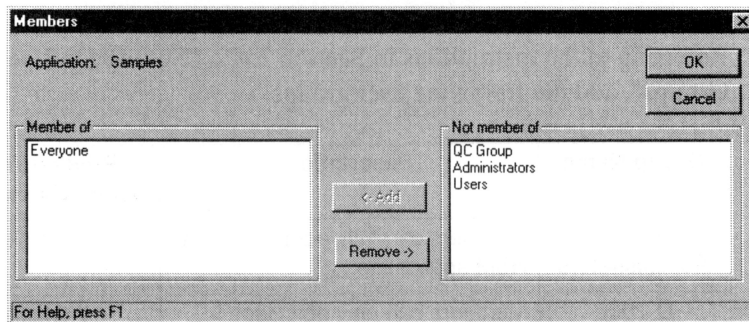
| Group Name | Description | Privilege added in Select Users or Groups |
|-----------------------|---|---|
| D-7000 Administrators | Members can fully administer the HSM application. | Administrator |
| D-7000 Developers | Members can only edit files owned by themselves. | Administrator |
| D-7000 Operators | Members can only use the HSM application. Method and data files cannot be modified. | Administrator |
| QC Group | Common group name for all members. | Administrator |

- Referring to the instructions in Section 2.4.2, "Setting Up Users/User Groups", add the following users:

| User Name | Member of |
|-----------|------------------------------------|
| Mr A | D-7000 Administrators and QC Group |
| Mr D | D-7000 Developers and QC Group |
| Mr O | D-7000 Operators and QC Group |

To restrict user access to applications:

- Referring to Section 2.4.3, "Creating an Application", create an application.
- In the **Application Manager** dialog, click **Members**. The **Members** dialog opens.



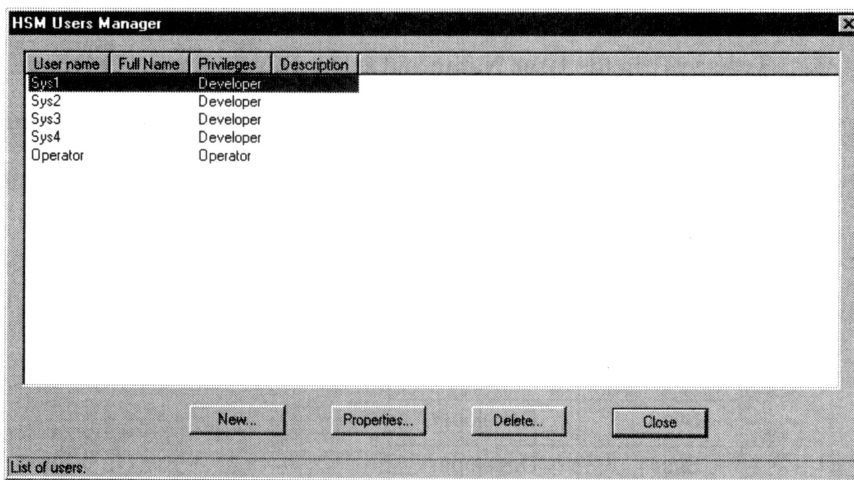
- By default, the user group, **Everyone**, is given access to the application. This means there is no restriction. To set limitation, highlight **Everyone** and click **Remove**.
- Highlight **QC Group** in the **Not member of** list box and click **Add**.

2.4.6 When GLP Security is HSM Users

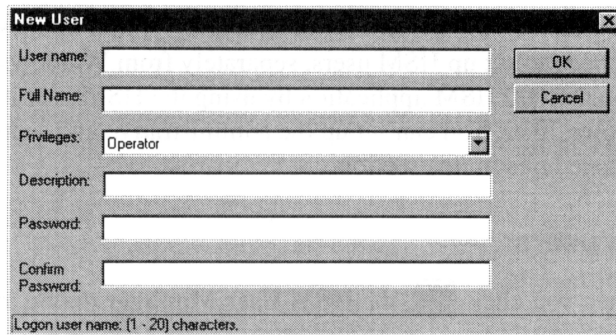
If you have selected **HSM Users** for the **Security** option in the **GLP Options** dialog, you need to set up HSM users, separately from Windows users. Users will log on to the D-7000 HSM application by using the HSM user names after they log on to Windows 2000. You can set up the administrative and security functions by using the procedures in this section.

To set up users:

1. When you click , the **HSM User Manager** dialog appears.



2. Click **New** to open the **New User** dialog.



The image shows a 'New User' dialog box with the following fields and controls:

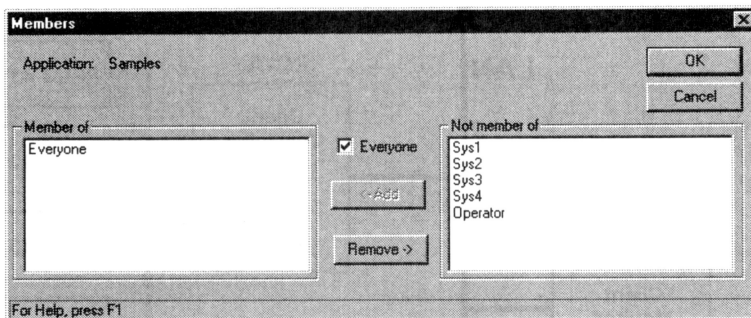
- User name:** A text input field.
- Full Name:** A text input field.
- Privileges:** A dropdown menu with 'Operator' selected.
- Description:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Buttons:** 'OK' and 'Cancel' buttons on the right side.
- Footer:** A status bar at the bottom reads 'Logon user name: (1 - 20) characters.'

3. Type **Sys1** in the **User Name** and select **Developer** for **Privilege**.
4. Input **Password** and repeat the same input in **Confirm Password**.
5. Click **OK** to create a user, Sys1. Repeat this step to create the following users:

| User Name | Privilege |
|-----------|-----------|
| Sys1 | Developer |
| Sys2 | Developer |
| Sys3 | Developer |
| Sys4 | Developer |
| Operator | Operator |

To restrict user access to applications:

1. In the **Application Manager** dialog, click **Members**. The **Members** dialog opens.



2. By default, the check box, **Everyone**, is selected. This means there is no restriction. To set limitation, unchecked **Everyone**.
3. Highlight the desired user in the **Not member of** list box and click **Add**.

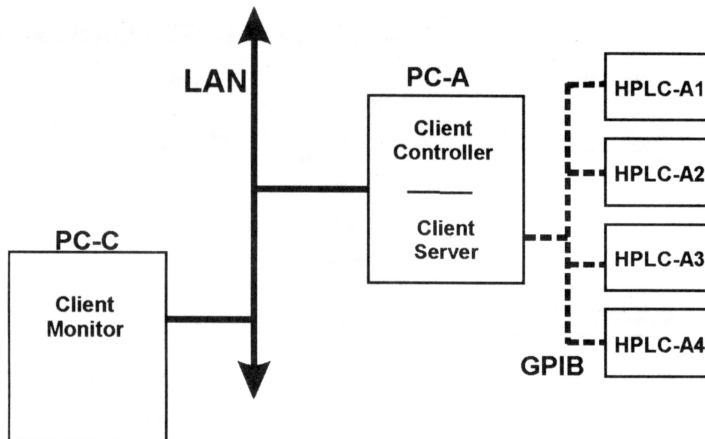
2.5 Remote Networking

The **Remote Control Networking** feature enables HSM applications to be controlled and/or monitored from remotely connected Client PC's.

In the following example, HPLC Systems A1 through A4 are controlled and monitored remotely.

- Client PC-C, in the office, is the monitor for four HPLC Systems, A1 through A4.
- Client PC-A, in the laboratory, is the server and the controller for Systems A1 through A4.

Note: Clients PC-C can monitor data acquisition and status of HPLC Systems A1 through A4, but cannot start/stop data acquisition or turn on/off pumps.



To setup local PC-A:

On local PC-A, launch the HSM Administration program and select **Systems 1, 2, 3, 4** and edit each **System Name** and set up each **Instrument Configuration**.

Note: When the local client controller and server exist on the same PC, you do not need to set up Remote Networking.

To setup remote PC-C:

On Client PC-C, launch the HSM Administration program and perform the following:

1. Select **Remote Networking** from the **Setup** menu. The Remote Networking Setup dialog opens.












2. In the dialog display box, enter data under each column header as listed below:

| Server PC Name | Hardware System Name | Remote System Name | Access Type |
|-----------------------|-----------------------------|---------------------------|--------------------|
| PC-A | HPLC-A1 | PC-A/HPLC-A1 | Monitor Only |
| PC-A | HPLC-A2 | PC-A/HPLC-A2 | Monitor Only |
| PC-A | HPLC-A3 | PC-A/HPLC-A3 | Monitor Only |
| PC-A | HPLC-A4 | PC-A/HPLC-A4 | Monitor Only |

3 Operating the D-7000 HSM

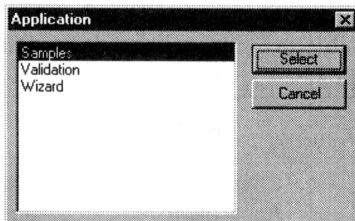
3.1 Tool Bar Icons

The following table provides a brief description of each icon displayed on the vertical tool bar:

| Icon | Name | Description |
|---|---------------------------------|--|
|  | Change Application | Select to switch to a different application. |
|  | Method Setup | Select to begin Method Setup functions. |
|  | Sample Table Setup | Select to begin Sample Table Setup functions. |
|  | Acquire Data | Select to begin Data Acquisition functions. |
|  | Reprocess Data | Select to begin Data Processing functions. |
|  | Report | Select to review Report files. |
|  | System Status | Select to review system status before and after downloading, and during idle monitor or data processing functions. |
|  | Main Pump A Accessory Pump B | Select to toggle Main Pump A on/off. Select to toggle Accessory Pump B on/off. |
|  | Multimedia System | Select to open Multimedia programs. |
|  | Print Window | Select to send copy of current window to the printer. |
|  | Sample Wizard | Select to open a Sample Wizard procedure. |

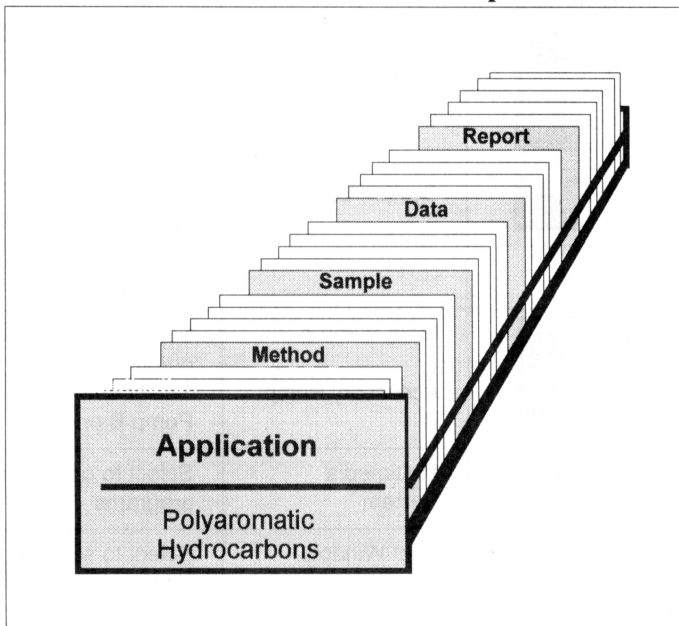
3.2 Selecting an Application

1. Click on the Application icon. The **Application** dialog appears.



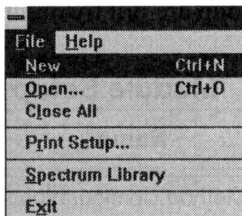
2. Select (highlight) **Polyaromatic Hydrocarbons** and click on **Select**. Confirm that the selection appears on the title bar of the Main screen

An application can be compared to a file drawer. Each contains a specific set of files. The **Polyaromatic Hydrocarbons** application, therefore, contains the set of files for **Methods**, **Sample Tables**, **Data**, and **Reports**.

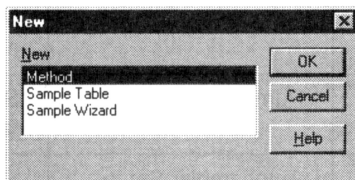


3.3 Setting Up a Method

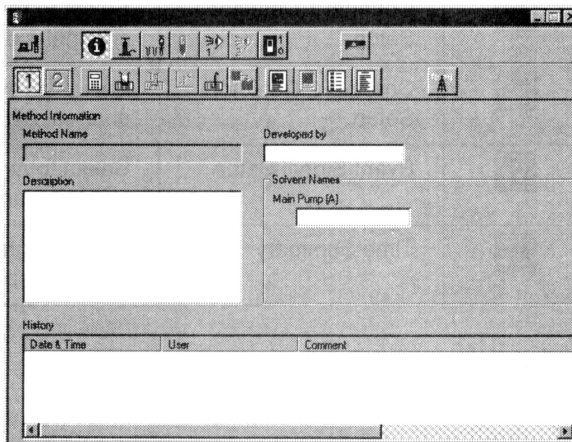
1. From the menu bar, select **File**. The **File** menu appears.



2. Select **New**. The **New** dialog appears.












3. Select (highlight) **Method** and click on **OK**. The **Method** window opens with the **Method Information** dialog.
















Quick-access icons are shown on two horizontal tool bars in the Method window. The upper tool bar contains the icons for commands on the **Module Setup** menu and the lower tool bar contains icons for commands on the **DataProcess Setup** menu. The icons in each group are briefly described in Tables 1 and 2, respectively.


Module Setup Icons

| Icon | Name | Description |
|---|--------------------------|--|
|  | Method Configuration | Select to review or modify Method Configuration parameters. |
|  | Method Information | Select to review or modify general Method information such as Method name and solvent names. |
|  | Pump Setup | Select to review or modify solvent table or pump parameters. |
|  | Autosampler Setup | Select to review or modify autosampler parameters. |
|  | Column Oven Setup | Select to review or modify the setup of the column oven. |
|  | Channel 1 Detector Setup | Select to review or modify the channel 1 detector. |
|  | Channel 2 Detector Setup | Select to review or modify the channel 2 detector. |
|  | Event Signal Setup | Select to review or modify event signal parameters. |
|  | Time Summary | Select to graphically review the Solvent Table and Event Table. |

Data Process Setup Icons

| Icon | Name | Description |
|---|----------------------|--|
|  | Channel 1 | Select to review or modify data processing parameters on channel 1. |
|  | Channel 2 | Select to review or modify data processing parameters on channel 2. |
|  | Calculation Method | Select to review or modify the Calculation Method. |
|  | Component Table | Select to review or modify the Component Table. |
|  | Concentration Table | Select to review or modify the Concentration Table. |
|  | Coefficient Table | Select to review or modify the Coefficient Table. |
|  | Integration Table | Select to review or modify the Integration Table. |
|  | DAD Data Processing | Select to review or modify DAD Data Processing parameters. |
|  | Chrom Display Format | Select to review or modify Chromatogram display parameters. |
|  | DAD Display Format | Select to review or modify DAD display parameters. |
|  | Confidence Report | Select to review or modify Confidence report parameters. |
|  | Report Format | Select to review or modify Report format. |
|  | Update Method | Select to update changed Method parameters on all open data display windows. |

3.3.1 Setting Up Method Configuration

1. Click on . The **Method Configuration** dialog appears.
2. Make the selections shown above by opening boxes and highlighting model numbers.

3.3.2 Setting Up Pump Parameters

1. Click on . The **Pump Setup** dialog appears.

Pump Setup (L-7100, None)

Pressure Limit

| | Min | Max |
|---------------|-----|----------|
| Main Pump (A) | 0 | 5975 psi |

Solvent Names

Main Pump (A)

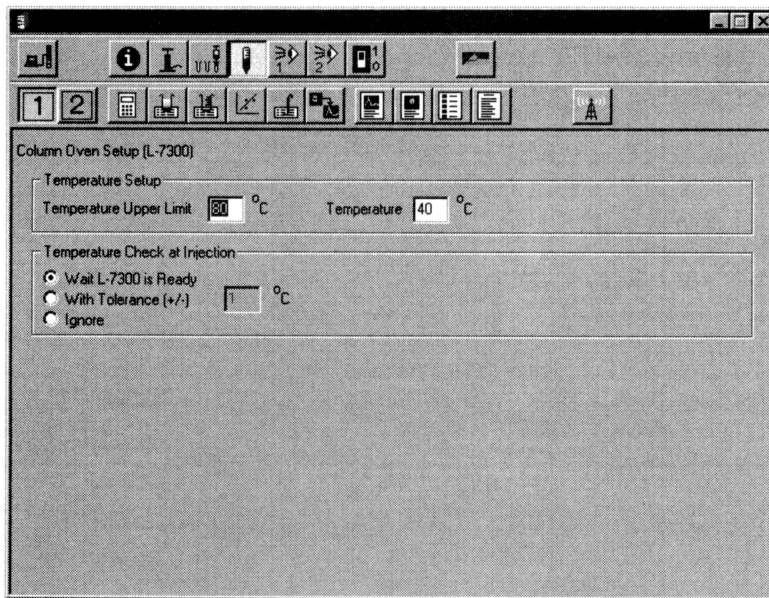
A: CH3OH

| Time (min) | %CH3OH | Flow(ml/min) | Main Pump | | | |
|------------|--------|--------------|-----------|---------|---------|---------|
| | | | Event 1 | Event 2 | Event 3 | Event 4 |
| 0.0 | 100 | 0.000 | | | | |
| 4.5 | 100 | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

2. Enter the parameters shown above.


3.3.3 Setting Up Column Oven Temperature

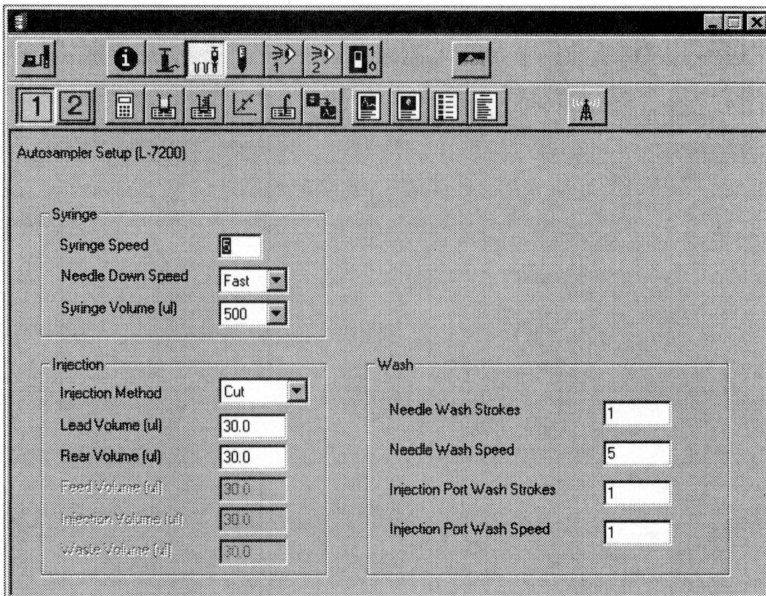
1. Click on . The **Column Oven Setup** dialog appears.



2. Enter the values shown above.

3.3.4 Setting Up Autosampler Parameters

1. Click on . The **Autosampler Setup** dialog appears.



Autosampler Setup (L-7200)

Syringe

Syringe Speed

Needle Down Speed

Syringe Volume (ul)

Injection

Injection Method

Lead Volume (ul)

Rear Volume (ul)

Feed Volume (ul)

Injection Volume (ul)

Waste Volume (ul)

Wash

Needle Wash Strokes

Needle Wash Speed

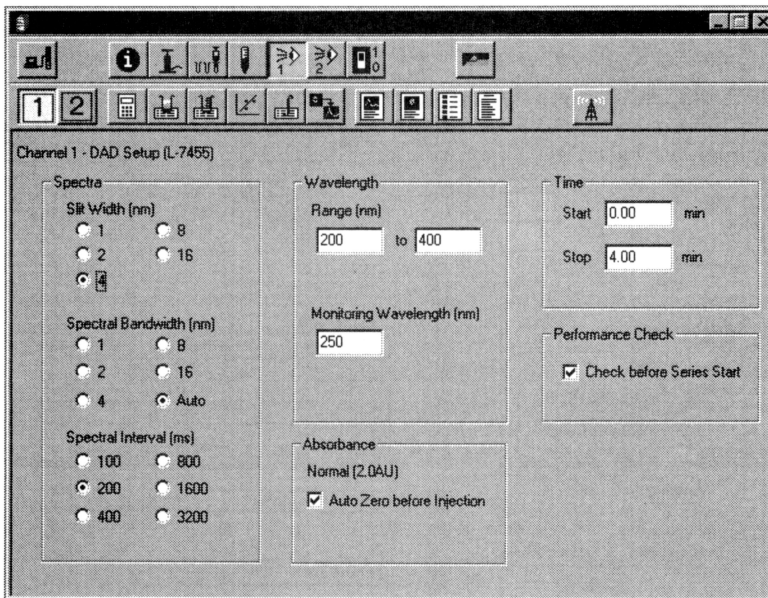
Injection Port Wash Strokes

Injection Port Wash Speed

2. Enter the values shown above.

3.3.5 Setting Up Channel 1 - Detector

1. Click on . The **Channel 1 DAD Setup** dialog appears.



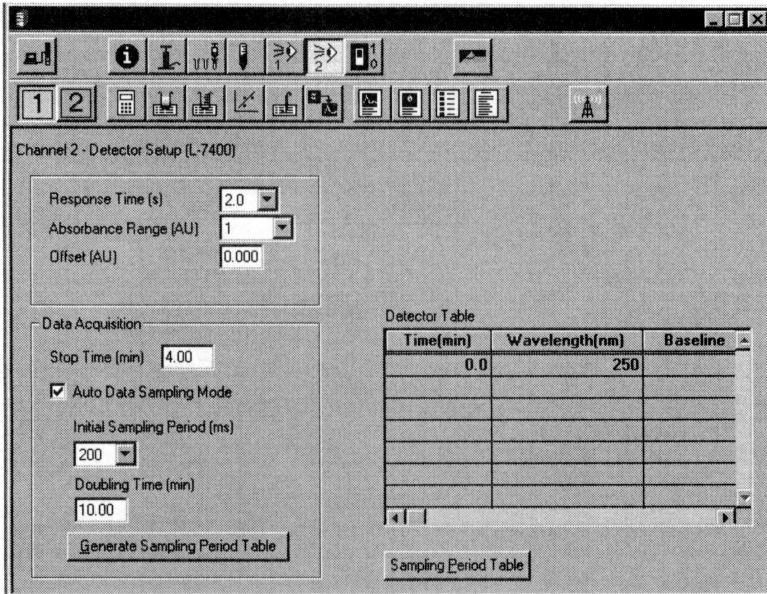
The image shows a software dialog box titled "Channel 1 - DAD Setup (L-7455)". It has a toolbar at the top with various icons. The main area is divided into several sections:

- Spectra**:
 - Slit Width (nm)**: Radio buttons for 1, 2, 4, 8, 16. The "4" button is selected.
 - Spectral Bandwidth (nm)**: Radio buttons for 1, 2, 4, 8, 16, Auto. The "Auto" button is selected.
 - Spectral Interval (ms)**: Radio buttons for 100, 200, 400, 800, 1600, 3200. The "200" button is selected.
- Wavelength**:
 - Range (nm)**: Two input fields, "200" and "400", with "to" between them.
 - Monitoring Wavelength (nm)**: An input field containing "250".
- Time**:
 - Start**: An input field containing "0.00" followed by "min".
 - Stop**: An input field containing "4.00" followed by "min".
- Performance Check**: A checkbox labeled "Check before Series Start" which is checked.
- Absorbance**:
 - Text: "Normal (2.0AU)".
 - Checkbox: "Auto Zero before Injection" which is checked.

2. Enter the values shown above.

3.3.6 Setting Up Channel 2 - Detector

1. Click on . The **Channel 2 Detector Setup** dialog appears.



Channel 2 - Detector Setup (L-7400)

Response Time (s)

Absorbance Range (AU)

Offset (AU)

Data Acquisition

Stop Time (min)

☒ Auto Data Sampling Mode

Initial Sampling Period (ms)

Doubling Time (min)

Detector Table

| Time(min) | Wavelength(nm) | Baseline |
|-----------|----------------|----------|
| 0.0 | 250 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

2. Enter the values shown above.

Note: To ensure program control from the HSM, press PARAM SET on the front-panel keypad of the detector and check that the default setting for Use Time Program is Yes(1).

3.3.7 Viewing Event Signal and Time Summary



1. Click on .

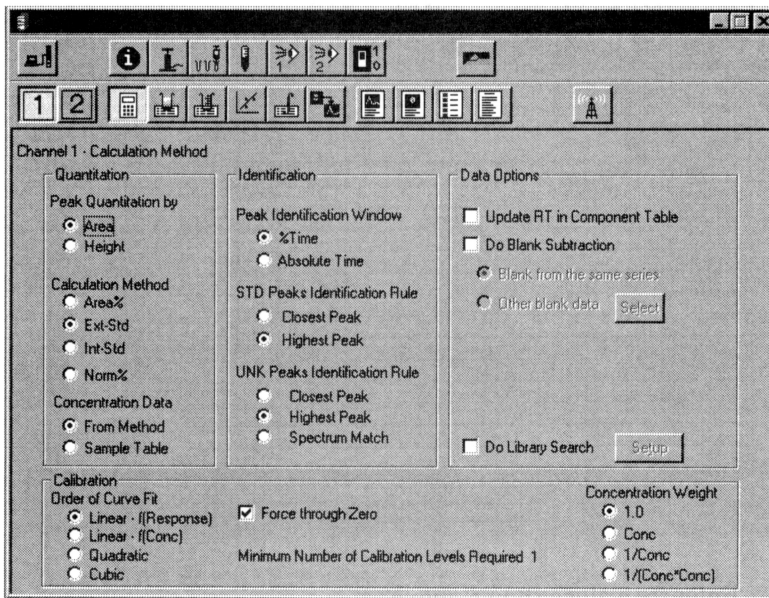
The **Event Signal** dialog appears.

2. Click on .

The **Time Summary** screen appears.

3.3.8 Setting Up Calculation Method

1. Click on .
2. Click on . The **Channel 1 Calculation Method** dialog appears.



Channel 1 - Calculation Method

Quantitation

Peak Quantitation by

☒ Area

☐ Height

Calculation Method

☐ Area%

☒ Ext-Std

☐ Int-Std

☐ Norm%

Concentration Data

☒ From Method

☐ Sample Table

Identification

Peak Identification Window

☒ %Time

☐ Absolute Time

STD Peaks Identification Rule

☐ Closest Peak

☒ Highest Peak

UNK Peaks Identification Rule

☐ Closest Peak

☒ Highest Peak

☐ Spectrum Match

Data Options

☐ Update RT in Component Table

☐ Do Blank Subtraction

☒ Blank from the same series

☐ Other blank data

☐ Do Library Search

Calibration

Order of Curve Fit

☒ Linear · f(Response)

☐ Linear · f(Conc)

☐ Quadratic

☐ Cubic

☒ Force through Zero

Minimum Number of Calibration Levels Required 1

Concentration Weight

☒ 1.0

☐ Conc

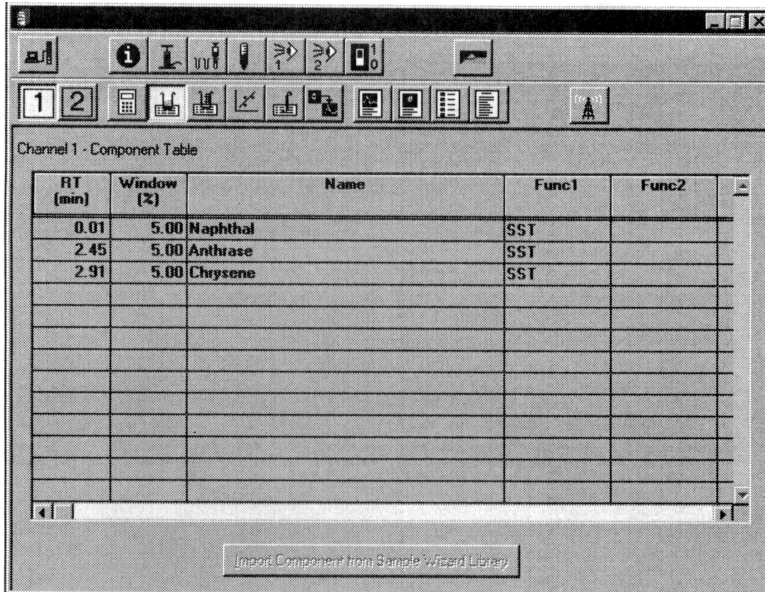
☐ 1/Conc

☐ 1/(Conc*Conc)

3. Enter the values shown above.

3.3.9 Setting Up Component Table

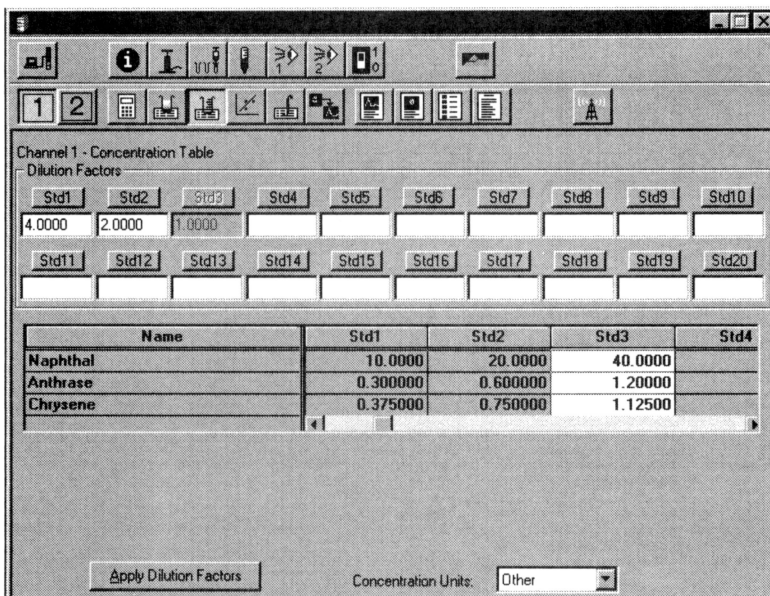
1. Click on . The **Component Table** dialog appears.



2. Enter the values shown above.

3.3.10 Setting Up Concentration Table

1. Click on . The **Concentration Table** appears.



Channel 1 - Concentration Table

Dilution Factors

| Std1 | Std2 | Std3 | Std4 | Std5 | Std6 | Std7 | Std8 | Std9 | Std10 |
|--------|--------|--------|------|------|------|------|------|------|-------|
| 4.0000 | 2.0000 | 1.0000 | | | | | | | |

| Std11 | Std12 | Std13 | Std14 | Std15 | Std16 | Std17 | Std18 | Std19 | Std20 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | | | | | |

| Name | Std1 | Std2 | Std3 | Std4 |
|----------|----------|----------|---------|------|
| Naphthal | 10.0000 | 20.0000 | 40.0000 | |
| Anthrane | 0.300000 | 0.600000 | 1.20000 | |
| Chrysene | 0.375000 | 0.750000 | 1.12500 | |

Apply Dilution Factors

Concentration Units: Other

2. Click on the **Std3** button. It corresponds to the number of Standard levels.
3. Enter the values on the last column (stds) and click on the **Apply Dilution Factors** button to calculate the concentration factors.

3.3.11 Viewing Coefficient Table and Integration Table

1. Click on .

The **Coefficient Table** appears. Initially, the table is empty.

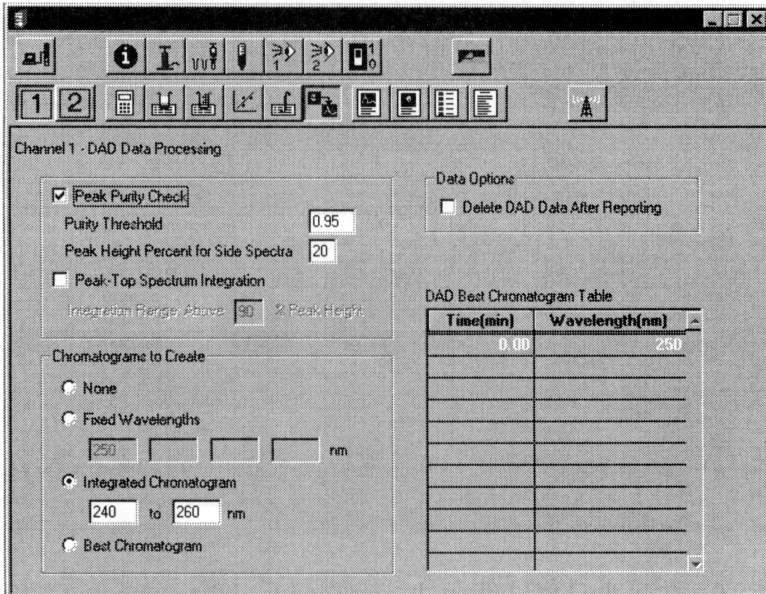
2. Click on .

The **Integration Table** appears.

3.3.12 Setting Up DAD Data Processing

1. Click on .

The **DAD Data Processing** dialog appears.



Channel 1 - DAD Data Processing

☒ Peak Purity Check

Purity Threshold

Peak Height Percent for Side Spectra

☐ Peak-Top Spectrum Integration

Integration Range Above % Peak Height

Chromatograms to Create

☐ None

☐ Fixed Wavelengths

nm

☒ Integrated Chromatogram

to nm

☐ Best Chromatogram

Data Options

☐ Delete DAD Data After Reporting

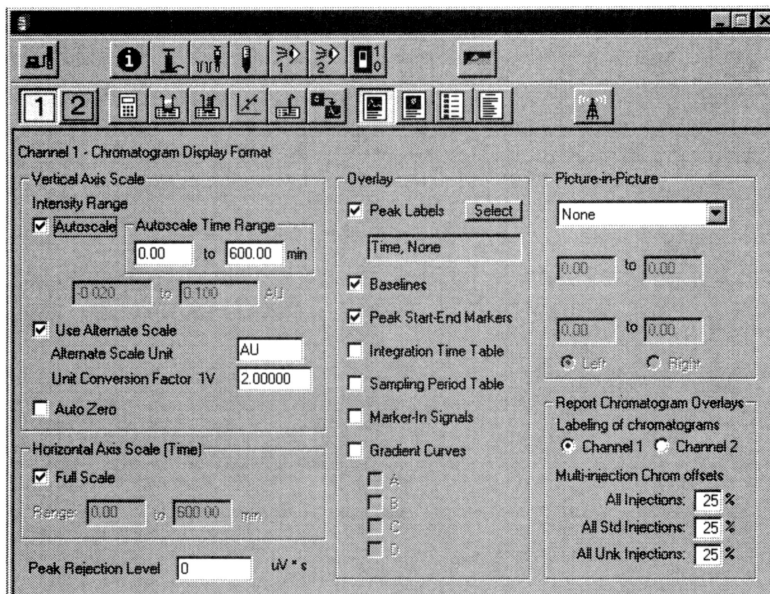
DAD Best Chromatogram Table

| Time(min) | Wavelength(nm) |
|-----------|----------------|
| 0.00 | 250 |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

2. Enter the values shown above.

3.3.13 Setting Up Chromatogram Display Format

1. Click on . Channel 1 Chromatogram Display Format dialog appears.



Channel 1 - Chromatogram Display Format

Vertical Axis Scale

Intensity Range

☒ Autoscale Autoscale Time Range: 0.00 to 600.00 min

☐ Manual Scale: 0.020 to 0.100 AU

☒ Use Alternate Scale

Alternate Scale Unit: AU

Unit Conversion Factor 1V: 2.00000

☐ Auto Zero

Horizontal Axis Scale (Time)

☒ Full Scale

Range: 0.00 to 600.00 min

Peak Rejection Level: 0 uV * s

Overlay

☒ Peak Labels Select

Time, None

☒ Baselines

☒ Peak Start-End Markers

☐ Integration Time Table

☐ Sampling Period Table

☐ Marker-In Signals

☐ Gradient Curves

☐ A

☐ B

☐ C

☐ D

Picture-in-Picture

None

0.00 to 0.00

0.00 to 0.00

☒ Left ☐ Right

Report Chromatogram Overlays

Labeling of chromatograms

☒ Channel 1 ☐ Channel 2

Multi-injection Chrom offsets

All Injections: 25 %

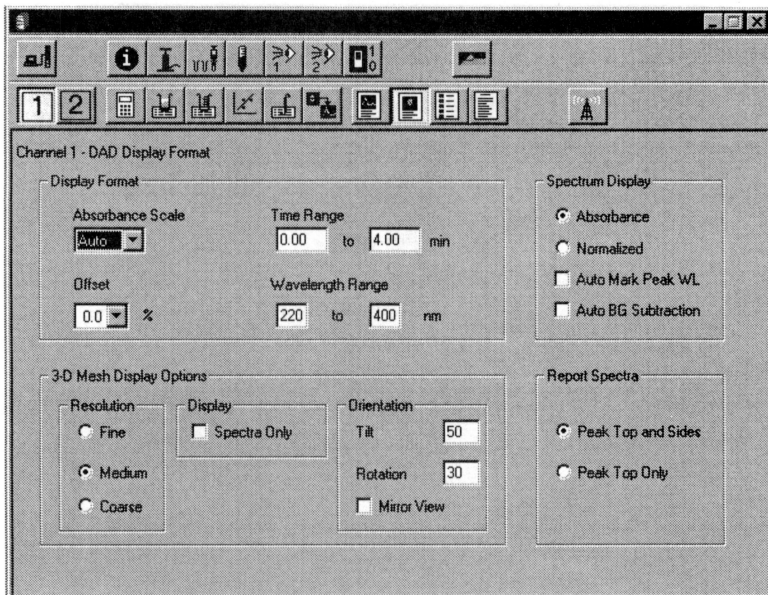
All Std Injections: 25 %

All Unk Injections: 25 %

2. Enter the values shown above.

3.3.14 Setting Up DAD Display Format

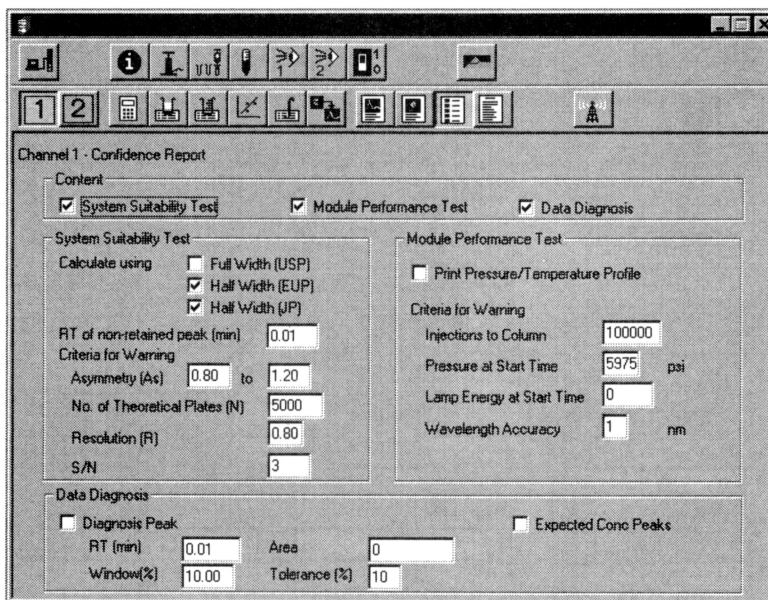
1. Click on . The DAD Display Format dialog appears.



2. Enter the values shown above.

3.3.15 Setting Up Confidence Report

1. Click on . The **Confidence Report** dialog appears.



Channel 1 - Confidence Report

Content

☒ System Suitability Test ☒ Module Performance Test ☒ Data Diagnosis

System Suitability Test

Calculate using ☐ Full Width (USP) ☒ Half Width (EUP) ☒ Half Width (JP)

RT of non-retained peak (min) 0.01

Criteria for Warning

Asymmetry (As) 0.80 to 1.20

No. of Theoretical Plates (N) 5000

Resolution (R) 0.80

S/N 3

Module Performance Test

☐ Print Pressure/Temperature Profile

Criteria for Warning

Injections to Column 100000

Pressure at Start Time 5975 psi

Lamp Energy at Start Time 0

Wavelength Accuracy 1 nm

Data Diagnosis

☐ Diagnosis Peak ☐ Expected Conc Peaks

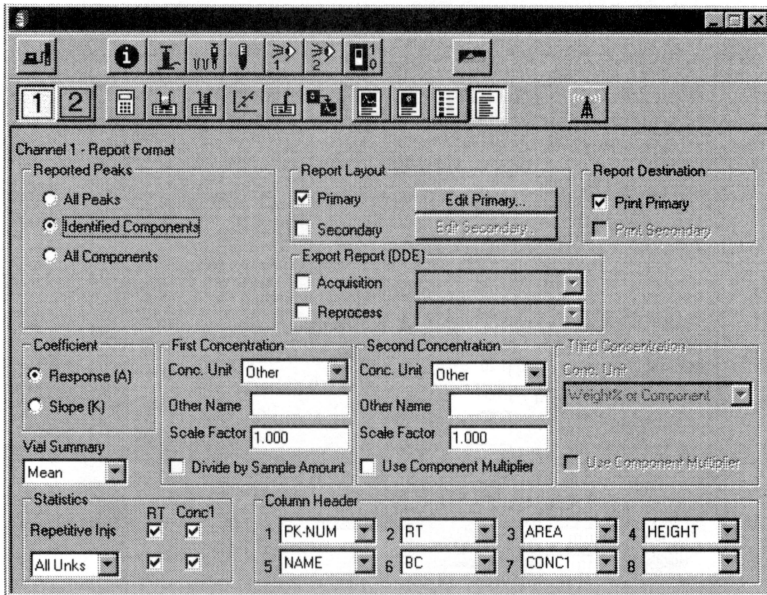
RT (min) 0.01 Area 0

Window(%) 10.00 Tolerance (%) 10

2. Enter the values shown above.

3.3.16 Setting Up Report Format

1. Click on . The **Report Format** dialog appears.



The **Channel 1 - Report Format** dialog box is shown. It contains the following settings:

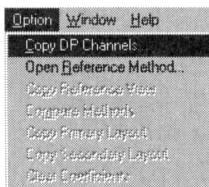
- Reported Peaks:** ☒ All Peaks, ☒ Identified Components, ☐ All Components
- Report Layout:** ☒ Primary, ☐ Secondary. Buttons: **Edit Primary...**, **Edit Secondary...**
- Report Destination:** ☒ Print Primary, ☐ Print Secondary
- Export Report (DDE):** ☐ Acquisition, ☐ Reprocess. Dropdowns: [], []
- Coefficient:** ☒ Response (A), ☐ Slope (K)
- First Concentration:** Conc. Unit: Other, Other Name: [], Scale Factor: 1.000, ☐ Divide by Sample Amount
- Second Concentration:** Conc. Unit: Other, Other Name: [], Scale Factor: 1.000, ☐ Use Component Multiplier
- Third Concentration:** Conc. Unit: Weight% or Component, ☐ Use Component Multiplier
- Vial Summary:** Mean [], ☐ All Unks
- Statistics:** Repetitive Injs: ☒ RT, ☒ Conc1, ☐ All Unks
- Column Header:**

| | | | | | | | |
|---|--------|---|----|---|-------|---|--------|
| 1 | PK-NUM | 2 | RT | 3 | AREA | 4 | HEIGHT |
| 5 | NAME | 6 | BC | 7 | CONC1 | 8 | [] |

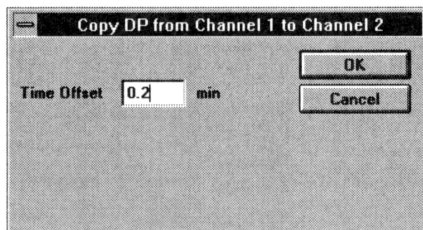
2. Enter the values shown above.

3.3.17 Copying Channel 1 D/P Parameters to Channel 2

1. From the menu bar, choose **Option**. The **Option** menu appears.



2. Choose **Copy DP Channels**. The **Copy DP from Channel 1 to Channel 2** dialog appears.



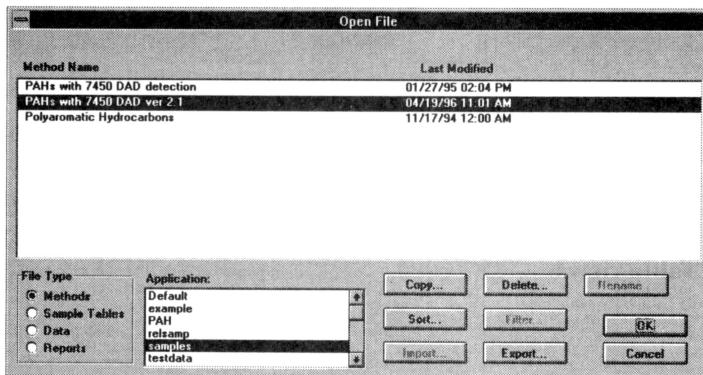
3. Enter **Time Offset** (time delay between channel 1 and channel 2 detectors) and click on **OK**.

The data processing values entered on channel 1 are copied to channel 2.

4. Alternately, click on channel 1 and 2 buttons to compare the values on data processing screens that were copied from Channel 1 to Channel 2.

3.3.18 Opening Reference Method

1. From **Options** menu, click on **Open Reference Method**. The **Open File** dialog appears.
2. Highlight **Samples** in the **Application** group box and **Polyaromatic Hydrocarbons** in **Method Name** box.



3. Click on **OK**. The following screen appears.

Reference Method - PAHs with 7450 DAD detection

Channel 1 - Report Format

Reported Peaks

☐ All Peaks

☒ Identified Components

☐ All Components

Report Layout

☒ Primary Edit Primary...

☐ Secondary Edit Secondary...

Report Destination

☒ Print Primary

☐ Print Secondary

Export Report (DDE)

☐ Acquisition

☐ Reprocess

Coefficient

☒ Response (A)

☐ Slope (K)

First Concentration

Conc. Unit: Other

Other Name: ng / µl

Scale Factor: 1.000

☐ Divide by Sample Amount

Second Concentration

Conc. Unit: Other

Other Name:

Scale Factor: 1.000

☐ Use Component Multiplier

Third Concentration

Conc. Unit: Weight% or Auto Comp.

☐ Use Component Multiplier

Vial Summary

Mean

Statistics

Retention Time

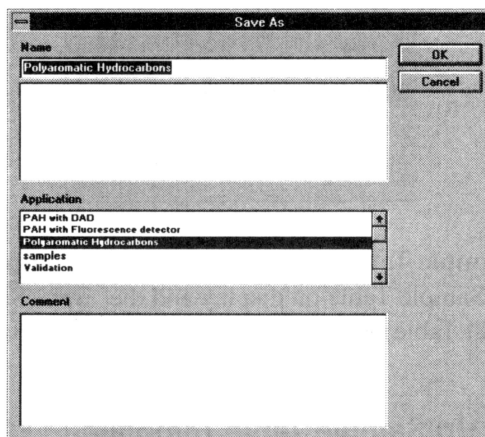
Column Header

RT

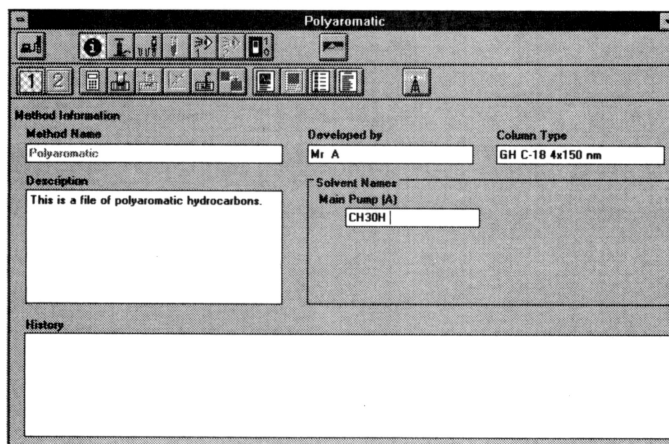
4. From the **Options** menu, select **Copy Reference View**. The currently displayed view is copied from the reference Method. This command is not available to the **Method Configuration**, **Method Information**, **Time Summary**, **Calculation Method**, **Concentration Table**, and **Coefficient Table** views.

3.3.19 Saving Method

1. From the **File** menu, choose **Save Method**. The **Save As** dialog appears.

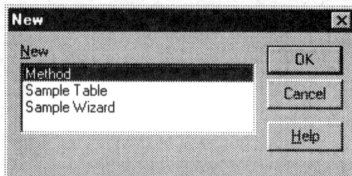




2. Type in the name **Polyaromatic**.
3. Enter comment in the **Comment** text box and click on **OK**.
4. Confirm the new Method name on the title bar.



3.4 Set Up a Sample Table

1. From the **File** menu, select **New**. The **New** dialog appears.



2. Select **Sample Table** and click on **OK**. The **Sample Table** window appears with the Sample Table on display and the  (Setup Information) and  (Edit Table) buttons on the horizontal tool bar.

3.4.1 Setting Up Sample Table Template

1. Click on . The **Sample Table** template appears.

Polyaromatic Hydrocarbons

Sample Table Name: Polyaromatic Hydrocarbons Rack Name: 4ml Vial

Template Parameters

Method Name: Polyaromatic Hydrocarbons 2

☒ Perform Calibration

☒ Fixed Position for STD Vials

Column Equilibrium Time (min): 0

Number of Calibration Levels: 3

Maximum Noise: Channel 1: 500 Channel 2: 500

Maximum Drift: 1000 200

STD Name: STANDARD

UNK Name: UNKNOWN

Injection Volume (ul): 10.0

First Vial Number: 6

Number of Vials: 1

☐ Set A Blank

Injection per Bk: 2

Cycles of STD/UNK: 1

Rack Parameters

Clear Table and Map

Append to Table and Map

Import File

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----|---|---|----|----|----|---|---|---|
| 1 | 8 | 9 | 52 | 53 | 11 | | | |
| 9 | | | | | | | | |
| 17 | | | | | | | | |
| 25 | | | | | | | | |
| 33 | | | | | | | | |
| 41 | | | | | | | | |
| 49 | | | | | | | | |

2. Enter the values shown above. Then, click on **Append to Table and Map**.

- Note:** This button is disabled if the map and table have no entries to delete.

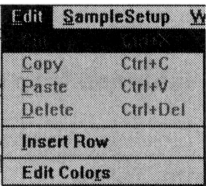
- ### 3.4.2 Confirming Sample Table

- [illegible]

- 2.** Check the values shown above.

3.4.3 Editing a Sample Table

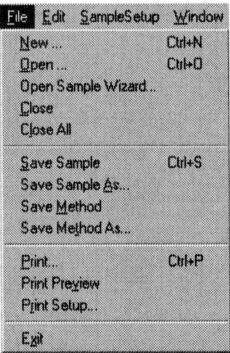
1. From the menu bar, click on **Edit**. The **Edit** menu appears.



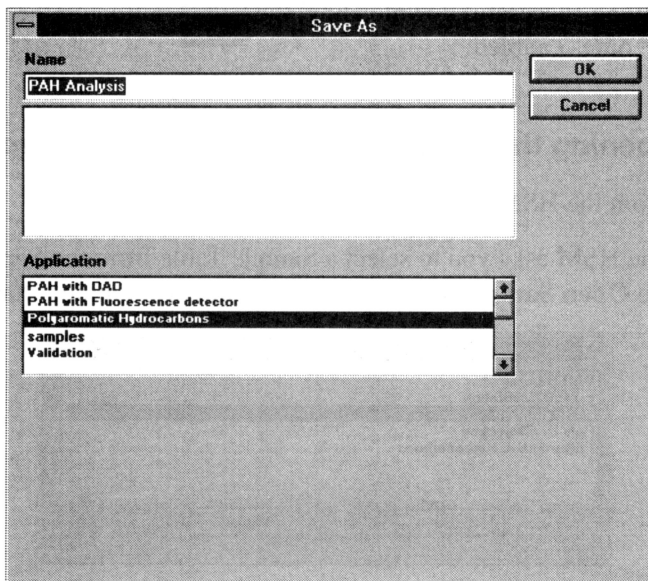
2. Select **Insert Row** to add a row to the Sample Table.

3.4.4 Saving a Sample Table

1. From the menu bar, click on **File**. The **File** menu appears.



2. Select **Save Sample**. The **Save As** dialog appears.



3. Click **OK** to save the sample table.


3.5 Setting Up Data Acquisition

Only a user having the same instrument configuration can follow the steps in following procedures. If the configuration does not match, you must create a Method file matching your instrument configuration and specify it on the Sample Table.


3.5.1 Initializing the System

1. From the HSM Main window, click . The **Hardware Status Dialog** appears.

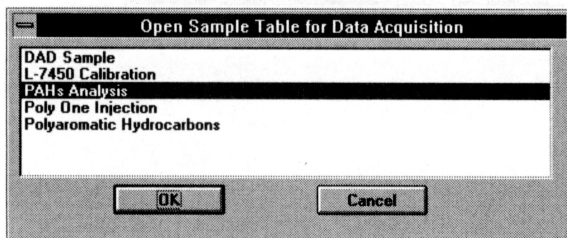
Note: The Access Type on the Hardware Status dialog defaults to Control and Monitor, and the Remote check box is disabled, unless a Remote System Name has been set up in the HSM Administration program.

2. Click on the **Initialize** button to download the HSM to the HPLC system. After a successful downloading, the  button on the Main Tool Bar becomes enabled.

3.5.2 Opening the Data Acquisition Screen (Control and Monitor)

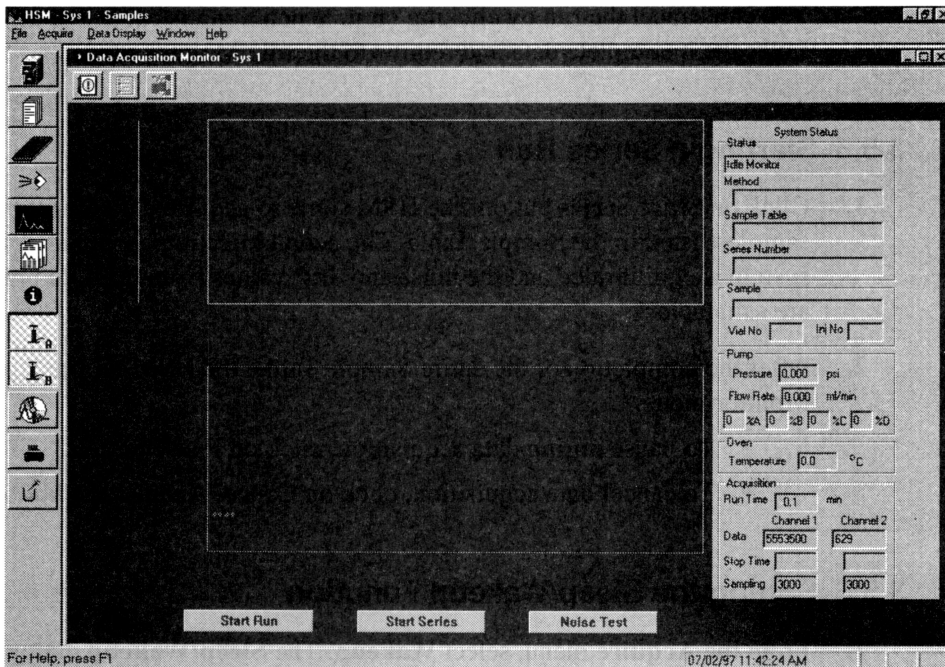
1. From the HSM Main window, click on .


The HSM asks you to select a Sample Table from the Sample Table list in the **Open Sample Table for Data Acquisition** dialog that appears.



2. In the list box, select (highlight) **PAHs Analysis** and click on **OK**.

The **Data Acquisition Monitor** screen displays the **Idle** Monitor state.



3. If the pump is off, click on .

3.5.3 Performing a Noise Test

1. Click on the Noise Test button. The test lasts 1 minute. After the test is completed, noise and drift values obtained from the test are displayed in a pop-up dialog.
2. Click on **OK** to continue.

3.5.4 Starting a Run

1. Click on **Start Run** button. The HSM starts to run a single injection acquisition using the first row of the Sample Table.

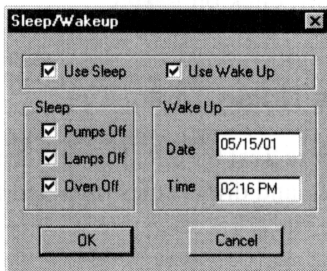
2. After acquisition starts, the **Cancel Run** pushbutton appears on the window. You can cancel the run by clicking on it. When a run is canceled, the HSM saves the incomplete data and returns to the Idle Monitor mode.

3.5.5 Starting a Series Run

1. Click on **Start Series** button. The HSM starts to acquire data for all the samples listed in the Sample Table. The actual injections begin after the system is equilibrated and the noise and drift values from the auto noise test are satisfactory.
2. After the completion of the entire Sample Table, the HSM returns to Idle Monitor mode.
 - To pause during data acquisition, click on Pause button.
 - To cancel data acquisition, click on Cancel Acquisition button.

3.5.6 Setting the Sleep/Wakeup Function

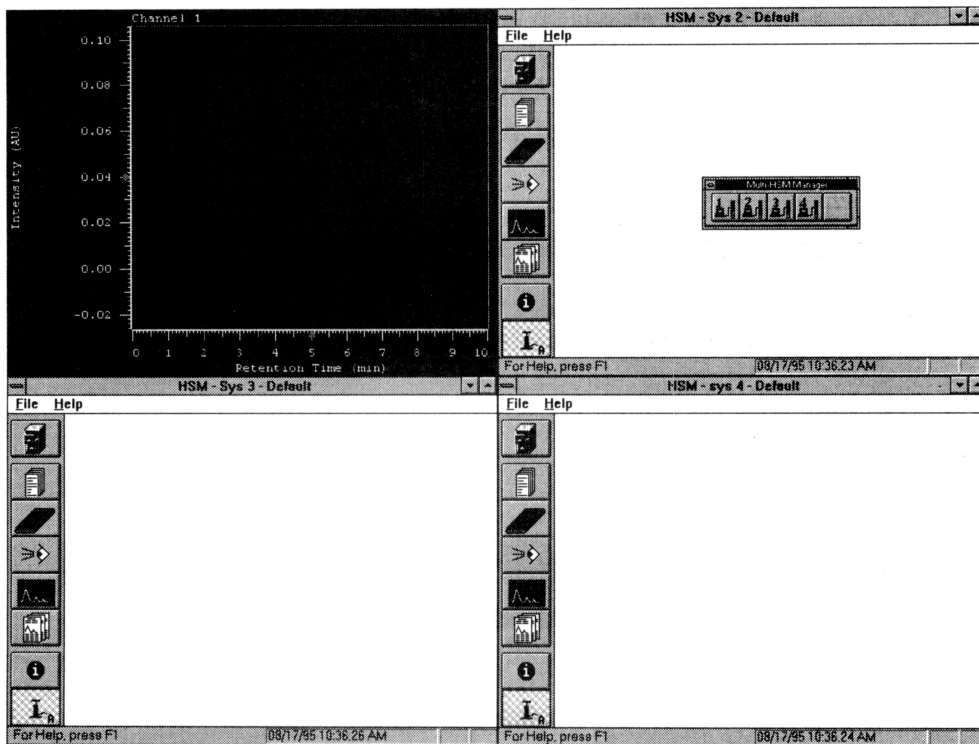
1. From the **Acquire** menu, select **Wakeup**. The **Sleep/Wakeup** dialog appears.



2. Enter **Date** and **Time** and click on **OK**.


3.5.7 Multi-System Display

On the floating tool bar, click on the **Tile** icon. If four systems are active (only one is in data acquisition mode), the System Monitor screens are displayed in tile mode as follows:



3.6 Setting Up Data Processing - Chromatograms

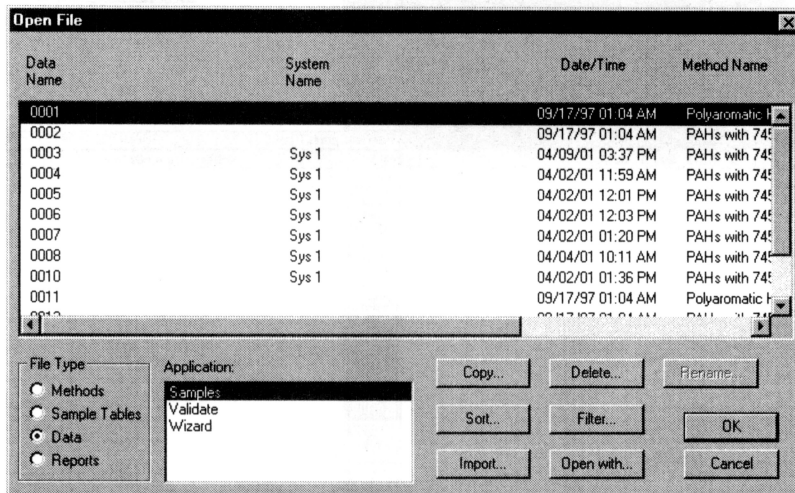
Note: In the following section, data processing is explained using sample data from the Samples application.

1. From the **File** menu, select **Close All**.
2. From the **Main** tool bar, click on .
3. From the **Application** dialog, select **samples**.

3.6.1 Opening Data

Note: When the Data Processing function is first opened, the HSM attempts to use the Method that is currently open. If the system configuration doesn't match that Method, however, a warning message is displayed. Click on OK to clear the message and then click on the Method icon. Close the current Method when the Method window appears.

1. Click on . The **Open File** dialog appears.



2. Select **0001** in the **Data Name** column and click on **OK**. The **Injection Table** appears along with the latest report. The method and report names opened are indicated on the title bar.

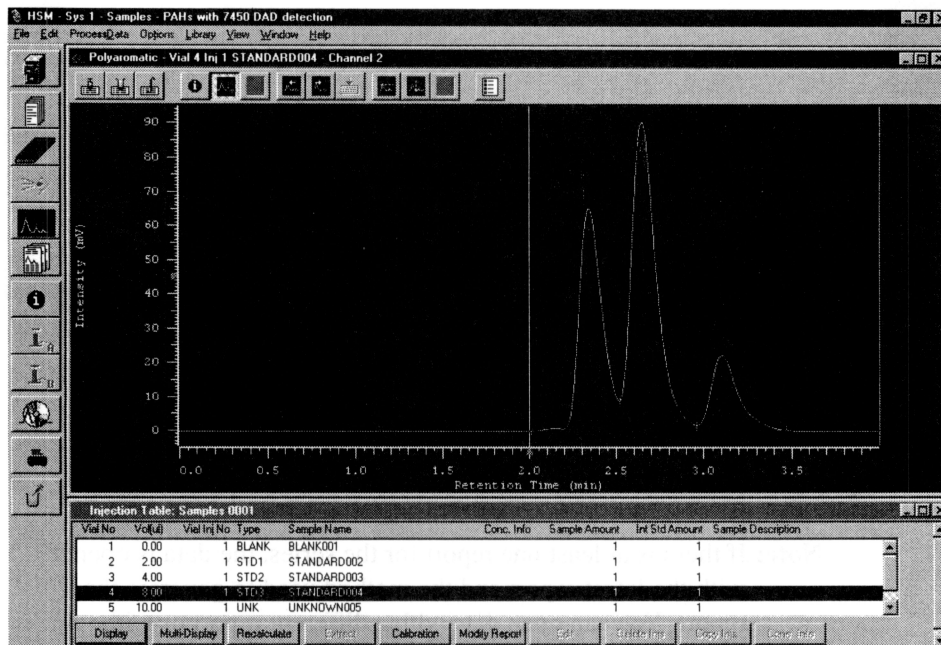
| Vial No | Volume | Vial In No | Type | Sample Name | Conc. Info | Sample Amount | Init Std Amount | Sample Description |
|---------|--------|------------|-------|-------------|------------|---------------|-----------------|--------------------|
| 1 | 0.00 | 1 | BLANK | BLANK001 | | 1 | 1 | |
| 2 | 2.00 | 1 | STD1 | STANDARD002 | | 1 | 1 | |
| 3 | 4.00 | 1 | STD2 | STANDARD003 | | 1 | 1 | |
| 4 | 8.00 | 1 | STD3 | STANDARD004 | | 1 | 1 | |
| 5 | 10.00 | 1 | UNK | UNKNOWN005 | | 1 | 1 | |

Note: If there is at least one report for the series, the data is opened with the latest report and the method used to generate the report. You can open data with a different report or without a report using the **Open with** function.

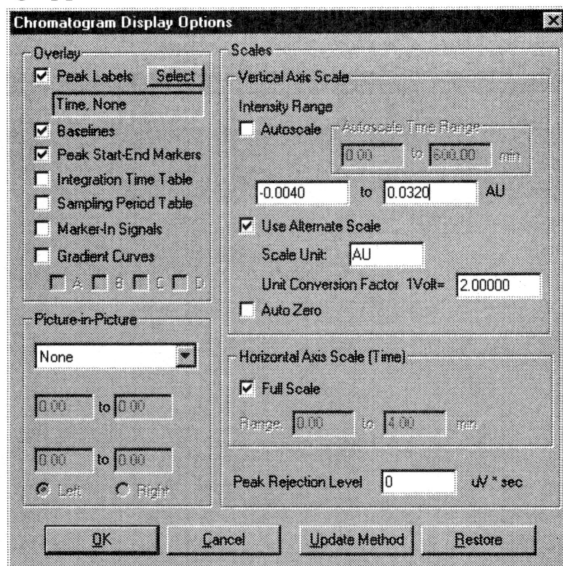
The method opened with a report was the one stored with the report when the report was generated (i.e., a Report Method). Even if you have a method with the same name in the current application (i.e., an Application Method), these two methods may not be the same, since any method change after the report generation is not reflected to the Report Method. Overwriting the Report Method is prohibited, and **Save Method** under the **File** menu is disabled. You can, however, save the Report Method as an Application Method by using **Save Method As**.

3.6.2 Selecting an Injection

1. Mark the **IFM CH2 2D** check box in the floating box.
2. Select (highlight) **STD3** and click on the **Display** button. The **Chromatogram** display screen appears.
3. Click on the right mouse button to automatically scale the X- and Y-axes.



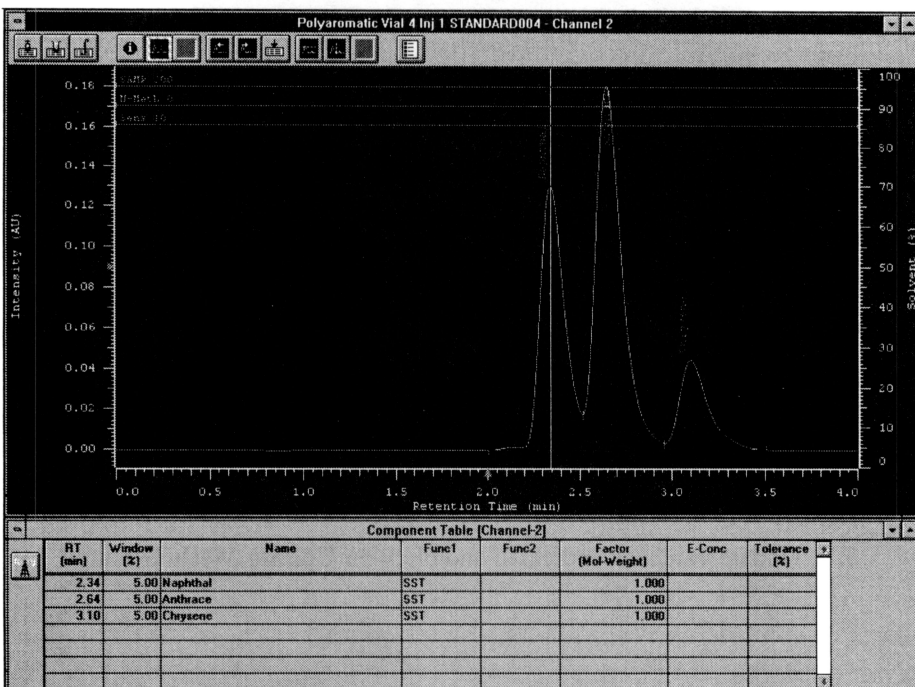
4. From the **Options** menu, select **Display Options**. The **Display Options** dialog appears.




5. Update values as indicated and click on **Update Method** button.

3.6.3 Component Table

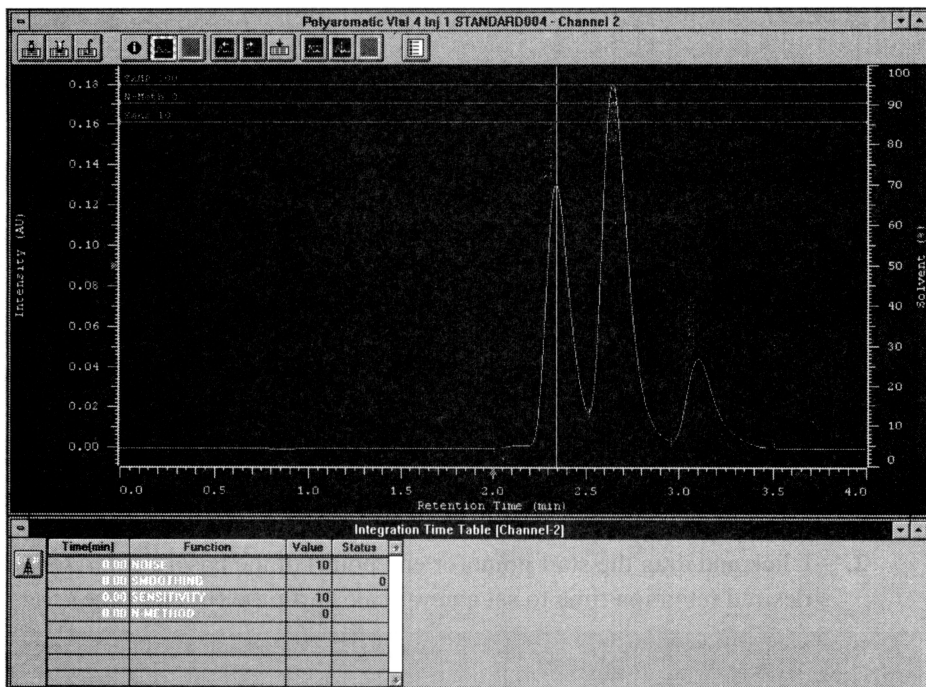
1. Click on . The **Component Table** appears along the bottom of the screen.



2. To export a peak retention time, use the Next Peak and Previous Peak icons to move the vertical cursor to the peak (e.g., Naphthal). Then, click on Export RT icon to copy the RT to the cell in the Component Table replacing the old content, if any.
3. Click on the  to update the Component Table in the Method.

3.6.4 Injection Time Table

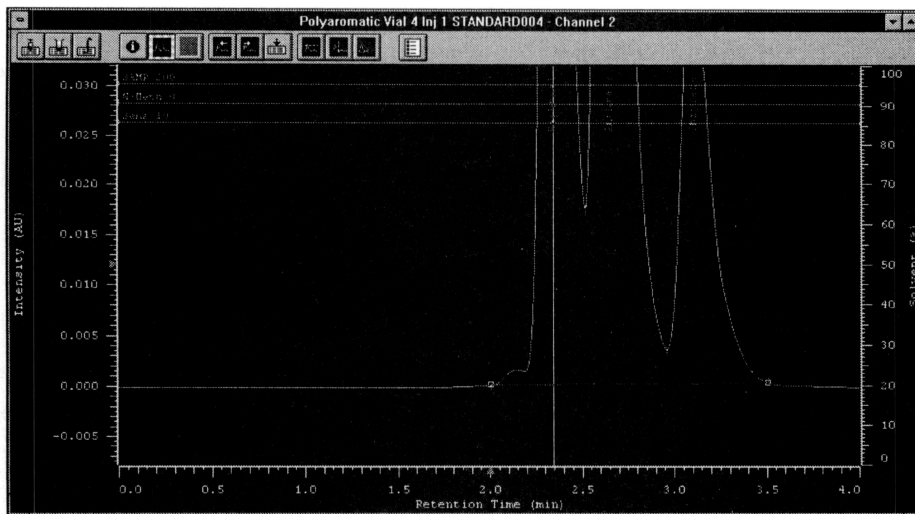
1. Click on . The **Integration Table** appears along the bottom of the screen.



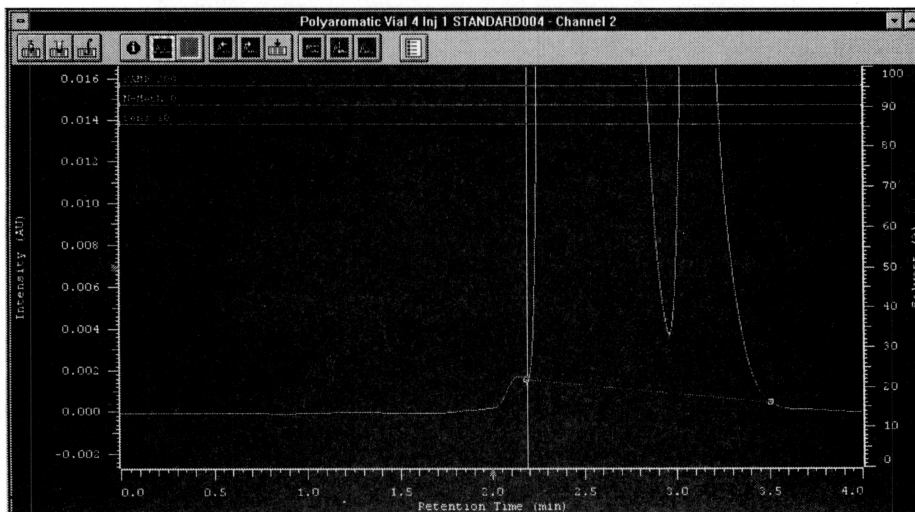
2. In the **Value** column, change **N-Method** from 0 to 1, **Sensitivity** from 10 to 5, and click on Update Method icon. Note that smaller peaks are detected.

3.6.5 Manually Correcting (MC) an Existing Baseline

1. Zoom in, then point and click on baseline. The color of the selected baseline changes to green.




2. Click and drag the start point (or end point) of the baseline horizontally to a desired retention time to set a new peak start time (or end time).



Note: The manually corrected baseline will not be saved until you press Recalculate. If you do not recalculate before closing the Injection Table, you will be reminded to recalculate and save the data.

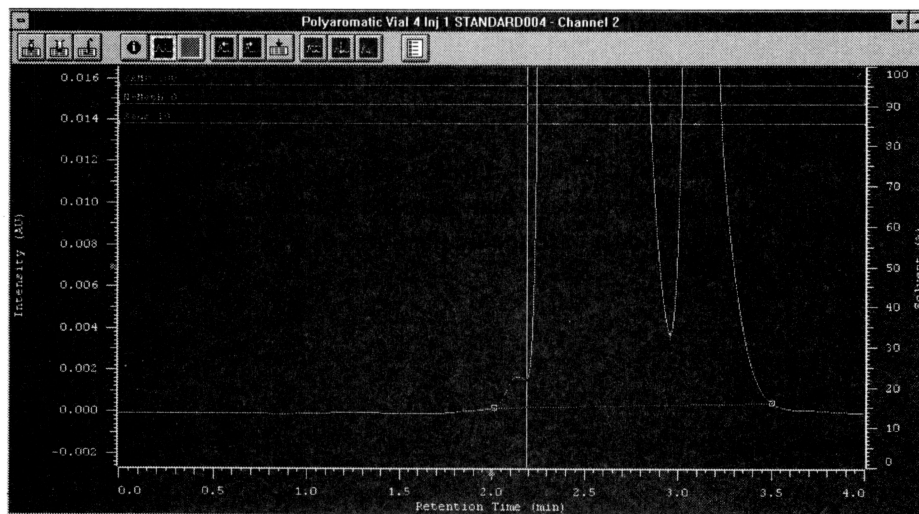
3.6.6 Making a New Baseline

1. Point and click on baseline. The color of the selected baseline changes to green.
2. Choose one of the following to delete the baseline:

- Click on .
- Press the **Del** key on the keyboard.

Note: You can recover the baseline by immediately selecting the Undo command from the Edit Menu.

3. Click on  (the moving cursor symbol changes).




4. Position the mouse pointer at the desired peak start position.

5. Click and drag the pointer horizontally to the desired peak end position.

A new baseline is made after you release the mouse button. The newly constructed baseline is always selected (green color). This allows you to further modify the peak start and end points. The new baseline is rejected if a baseline already exists for the peak that has no sub peaks (overlapping peaks), or if the new baseline extends into the neighboring baseline region. Also, if the new baseline cuts through a groove between peaks (too high), a warning message is displayed.

Note: The manually added baseline will not be saved until you press Recalculate. If you do not recalculate before closing the Injection Table, you will be reminded to recalculate and save the data.

3.6.7 Separating Overlapping Peaks Using a Vertical Line

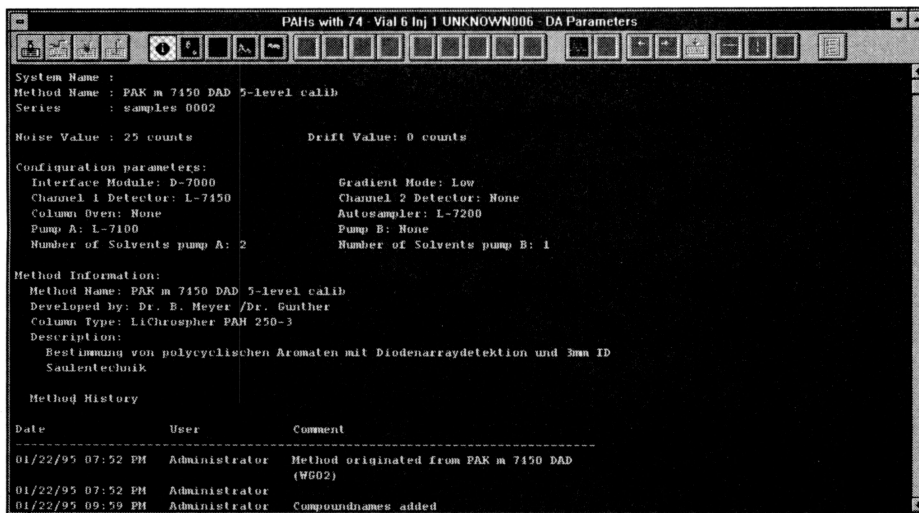
1. Click on  (the moving cursor changes to a vertical dash line).
2. Position the cursor to the desired retention time and click.

The position of the peak start and end markers between two peaks is changed as desired.

Note: The vertical line is rejected if it is not placed between overlapped peaks that share the same baseline, or if it is placed on a baseline that belongs to a single peak.


3.6.8 Acquisition Information

1. Click on . The Acquisition Information screen appears:



2. Click on  to return to the Chromatogram display screen.

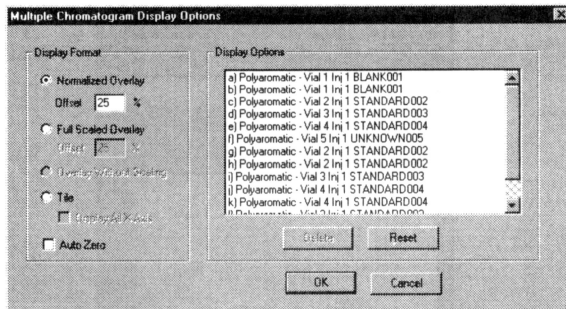
3.6.9 Multi-Display

1. Click on .
2. Select (highlight) **STD1, 2, 3, and UNK** and click on **Multi-Display** button.
The following screen appears.

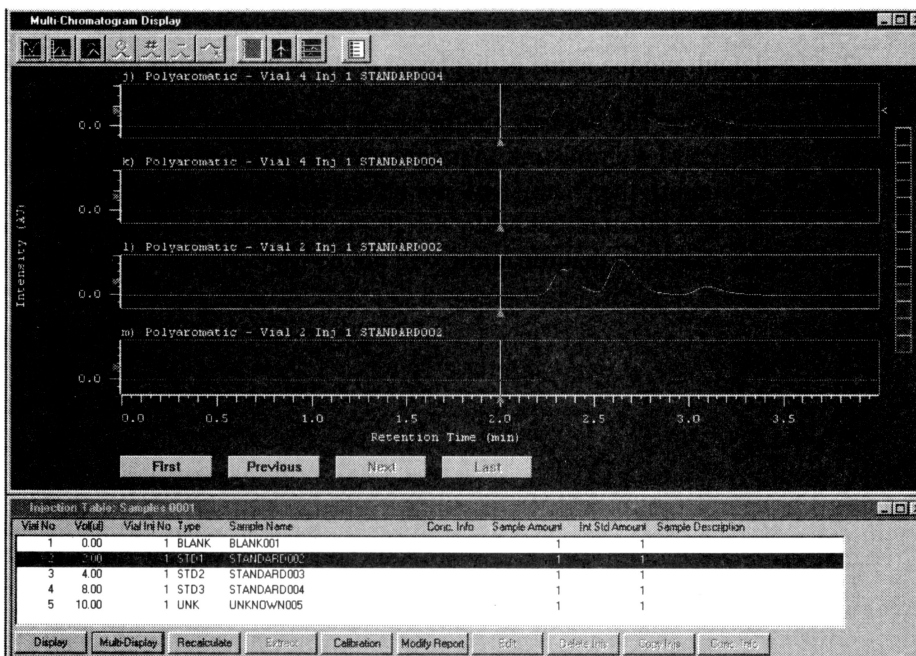


3.6.10 Multiple Chromatogram Display Options

1. Click on . The Multiple Chromatogram Display Options dialog appears.



2. Select **Overlay** to change from tile mode to overlay mode.



3.6.11 Recalculate/Report File Functions

1. Click on the **Recalculate** button. The **Specify Report Name** dialog is displayed.

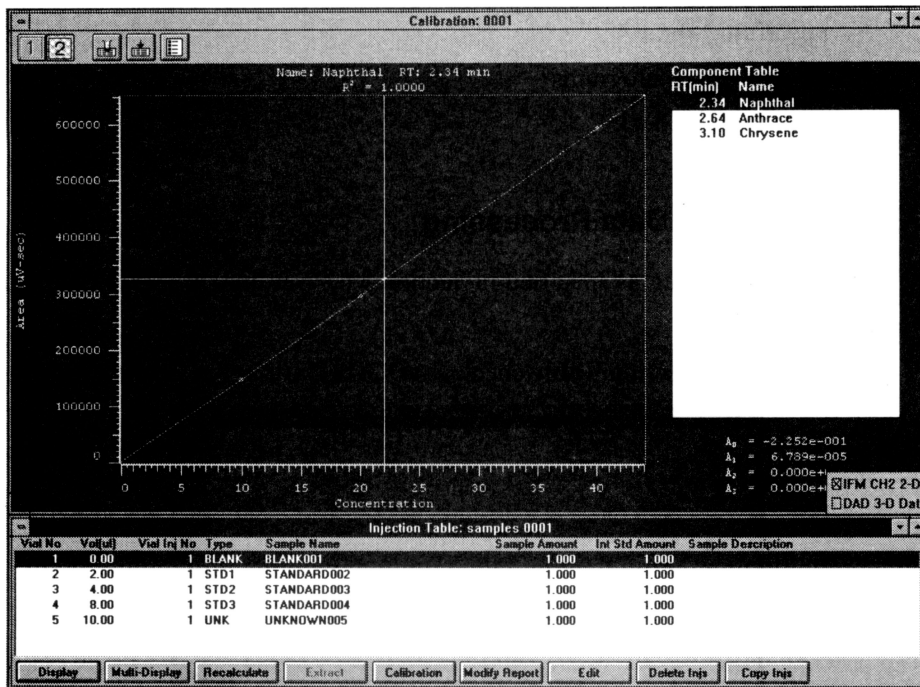





2. A default unique name is displayed in the Report Name box. Click **OK**.

Note: If the file tracking for the application is turned on in the HSM Administration program and if you rename a generated report, the change will not be reflected to the audit log. Pay special attention when specifying the report name in this dialog so that renaming will not be necessary.

3.6.12 Calibration Curves

1. Click **Calibration** button. The **Calibration** screen appears.



2. Click on . The **Calibration Display Options** dialog appears. If you choose to modify the **Calibration** display, change parameters and click on **OK**.
3. Click on  to save the coefficients associated with the currently displayed calibration curve to the Coefficient Table of the current Method. Note that only the row corresponding to the display component is updated in Coefficient Table.
4. Click on  to display the Component Table of the current Method. The HSM displays the table at the bottom of the Main window. Click on Update Method icon to update all changes of the Component Table to all other open windows.

3.7 Setting Up Data Processing - DAD Data

The three main functions of DAD analysis are as follows:

- Spectrum Library
- Extract Chromatograms
- Peak Purity Check

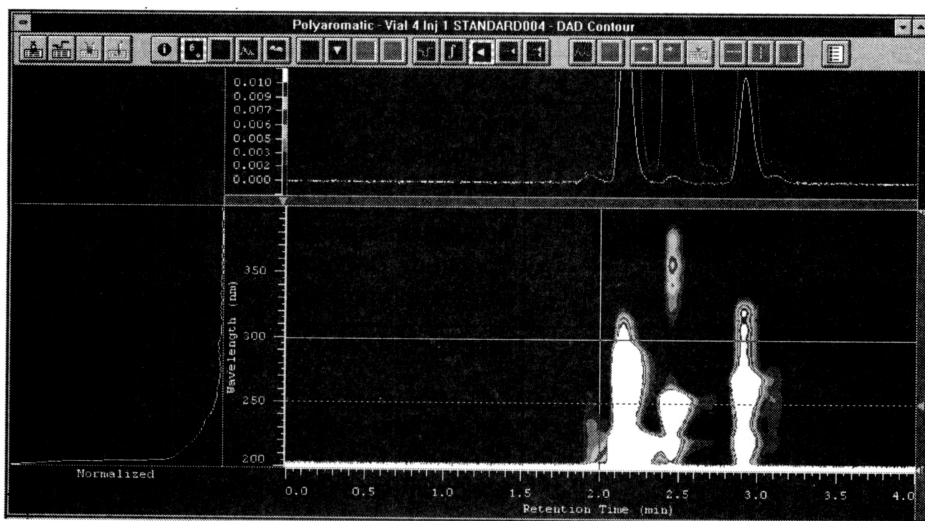
3.7.1 Selecting Data Processing

Select data processing as specified in Section 3.6, "Setting Up Data Processing - Chromatograms".

1. On the **Injection Table** check **DAD 3-D Data** in the floating box.







| Vol No | Vol No | Vol No | Type | Sample Name | Conc. Info | Sample Amount | Int. Std. Amount | Sample Description |
|--------|--------|--------|------|-------------|------------|---------------|------------------|--------------------|
| 2 | 2.00 | 1 | STD1 | STANDARD002 | | 1 | 1 | |
| 3 | 4.00 | 1 | STD2 | STANDARD003 | | 1 | 1 | |
| 4 | 8.00 | 1 | STD3 | STANDARD004 | | 1 | 1 | |
| 5 | 10.00 | 1 | UNK | UNKNOWN005 | | 1 | 1 | |

2. Select **STD3** and click **Display** button. The **Contour Display** screen appears.



3.7.2 Tool Bar Icons

The following toolbar icons are available:

| Icon | Name(s) |
|--|--|
|  | Injection Table, Best Chrom Table, Component Table, and Integration Table. |
|  | Acquisition Information, Contour, Spectrum, Unprocessed Chromatogram, and 3-D Mesh. |
|  | Display Options. |
|  | Background Subtraction, Integrated Spectrum, Frozen Spectra, Freeze Spectrum, and Clear Frozen Spectra. |
|  | Best Chromatogram, Integrated Chromatogram, Fixed Wavelength Chromatogram, Set Fixed WL Chromatogram, and Clear Fixed WL Chromatogram. |
|  | Chromatogram, Purity Spectra, Previous Peak, Next Peak, Export RT, New Baseline, New Vertical Baseline, and Delete Baselines. |

3.7.3 Displaying a Spectrum at a Specific Time

Move the vertical line cursor on the Contour map to the time you want to inspect. The corresponding spectrum is displayed in the side view.

3.7.4 Displaying a Chromatogram at a Specific Wavelength

Move the horizontal line cursor on the Contour map to the wavelength you want to inspect. The corresponding chromatogram is displayed in the top view.

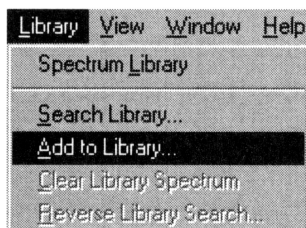
3.7.5 Simultaneously Setting Displays of a Spectrum and a Chromatogram at a Specific Time and Wavelength

1. Position the mouse pointer near the cross point of the line cursors and observe the pointer symbol changes.
2. Hold down the left mouse button and drag the pointer symbol to the point you want to inspect; the corresponding spectrum and chromatogram are displayed in the side and top views.

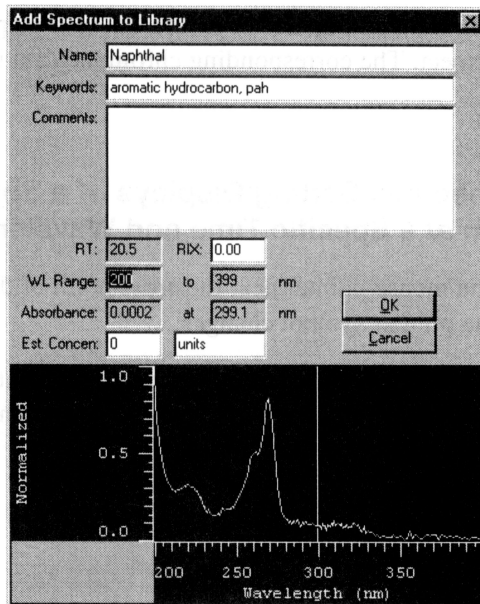
3.7.6 Using Spectrum Library

To add to Library:

1. From the menu bar, select **Library**. The **Library** menu appears.



2. Select **Add to Library**. The **Add Spectrum to Library** screen appears.



Add Spectrum to Library

Name: Naphthal

Keywords: aromatic hydrocarbon, pah

Comments:

RT: 20.5 RID: 0.00

WL Range: 200 to 399 nm

Absorbance: 0.0002 at 299.1 nm

Est. Concent: 0 units

OK Cancel

Normalized

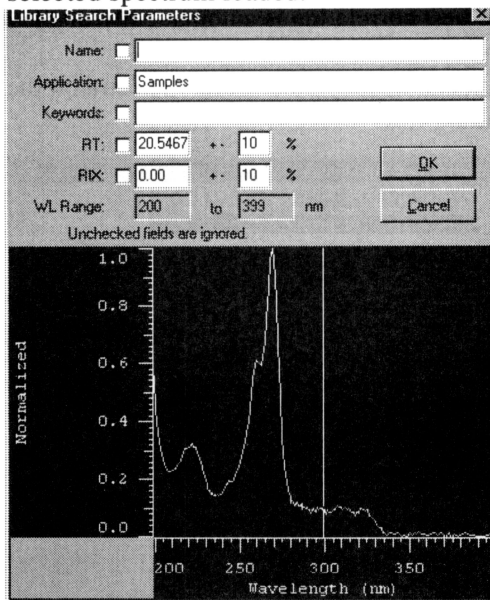
Wavelength (nm)

The plot shows a normalized spectrum with a peak at approximately 299.1 nm. The y-axis ranges from 0.0 to 1.0, and the x-axis ranges from 200 to 350 nm.

3. Type information in the **Name**, **Keywords**, and **Comment** text boxes and click on **OK**.

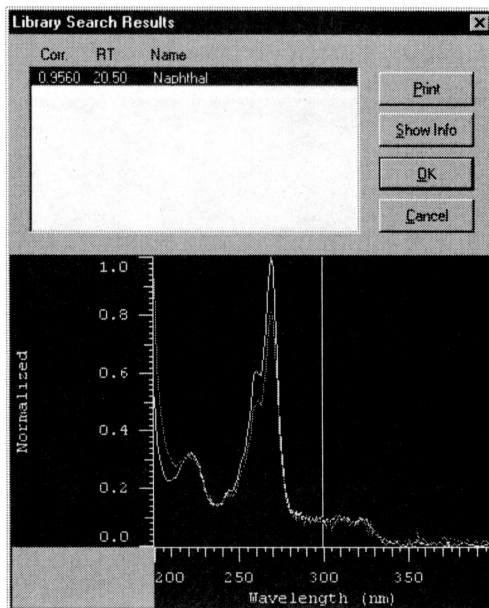
To search library:

1. Select a spectrum from the Contour map using the horizontal cursor.
2. Select **Search Library**. The **Library Search Parameters** dialog appears with the selected spectrum loaded.

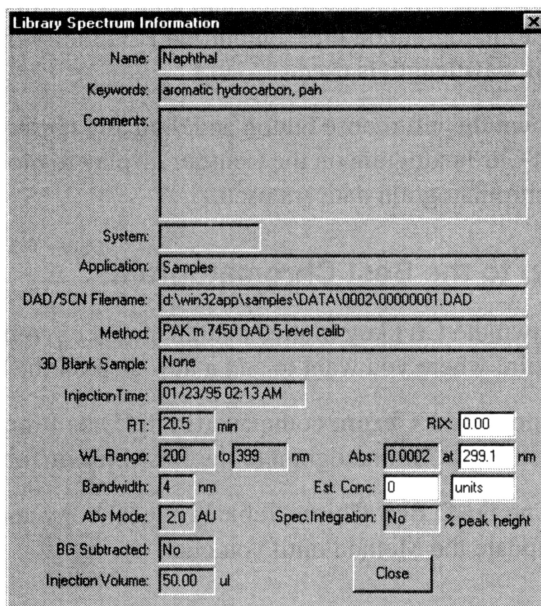


3. Click on **OK**. The search uses **Name**, **Application**, **Keywords**, and **RT** as arguments if you have entered all of them. Only those library spectra that match all the arguments are taken for correlation calculation. If the **Name**, **Application**, and **Keywords** fields are unchecked, the HSM uses **RT** as the single argument in searching. Similarly, you can select or deselect an argument by checking or unchecking the corresponding field.

4. The search results are displayed automatically in the **Library Search Results** dialog. A maximum of 10 candidates are displayed. The library spectrum having the best correlation is automatically displayed along with the searched spectrum in the dialog. You can display other library spectra on the list by clicking on the corresponding row. The library spectrum having the best correlation is automatically displayed along with the searched spectrum in the dialog. You can display other library spectra on the list by clicking on the corresponding row.



- Double-click on a selected row. The **Library Spectrum Information** dialog appears.




The dialog box titled "Library Spectrum Information" contains the following fields and values:

- Name: Naphthal
- Keywords: aromatic hydrocarbon, pah
- Comments: (empty text area)
- System: (empty text box)
- Application: Samples
- DAD/SCN Filename: d:\win32app\samples\DATA\0002\00000001.DAD
- Method: PAK m 7450 DAD 5-level calib
- 3D Blank Sample: None
- Injection Time: 01/23/95 02:13 AM
- RT: 20.5 min
- RfX: 0.00
- WL Range: 200 to 399 nm
- Abs: 0.0002 at 299.1 nm
- Bandwidth: 4 nm
- Est. Conc: 0 units
- Abs Mode: 2.0 AU
- Spec. Integration: No % peak height
- BG Subtracted: No
- Injection Volume: 50.00 ul
- Close button

- Modify parameters as applicable and click on **Save** to save the modification and click on **Close** to close the dialog.

3.7.7 Extracting Chromatograms (Best WL Chromatogram)

To display the Best Chromatogram:

Click on . The Best Chromatogram is displayed in the top display area along with the chromatogram associated with the current line cursor position. Simultaneously, the Best Chromatogram table is graphically displayed on the Contour map along with the current line cursor.


A vertical step represents a change in wavelength, hence an entry in the actual Best Chrom Table.

To edit the Best Chromatogram graphically:


1. Hold down the left mouse button and drag any vertical section (line) of the Best Chromatogram on the Contour map to modify the time at which a different wavelength is used.
2. Hold down the left mouse button and drag any horizontal section (line) of the Best Chromatogram on the Contour display to modify the wavelength at which chromatogram data are used.

To add a step to the Best Chromatogram:

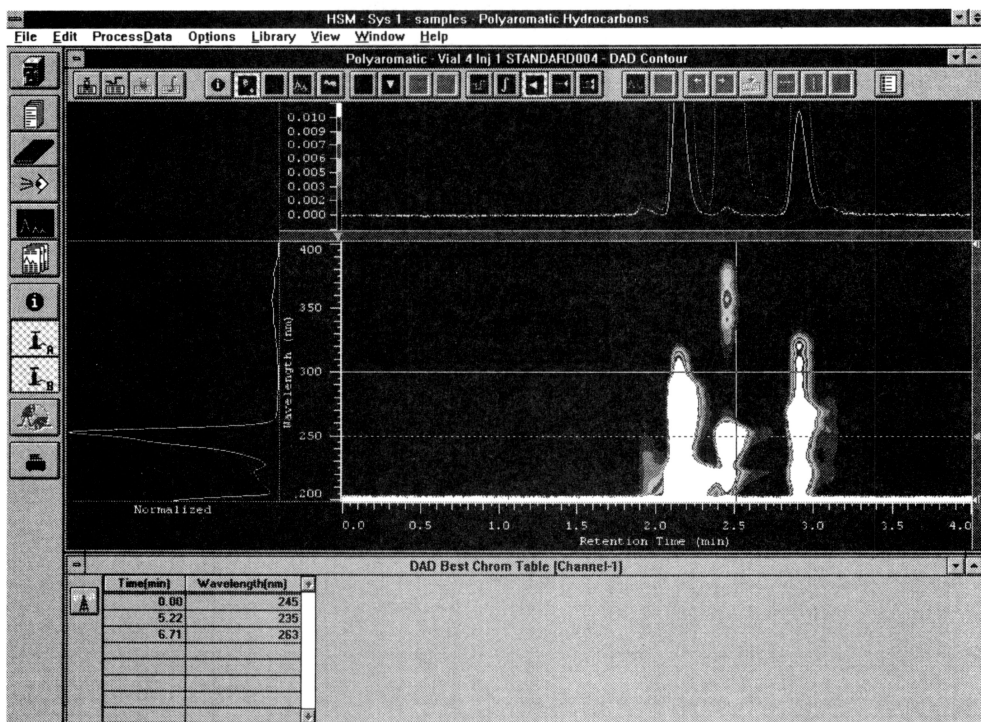
1. Hold down the **Ctrl** key (notice that the pointer symbol changes) and click at the point where you want to add a new step on the Contour display.
2. Use **Export Best Chrom** command (in the Data Processing menu) to load the edited Best Chromatogram to the Best Chrom Table.

Note: The DAD Best Chrom Table is a local copy and does not update the Method until you click on .

To open and edit the Best Chrom Table:

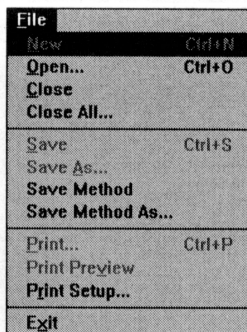
1. Click on . The HSM displays the Best Chrom Table at the bottom of the Main window to allow you to view both the table and graphs.

2. You can edit the Best Chrom Table by entering Time and Wavelength values



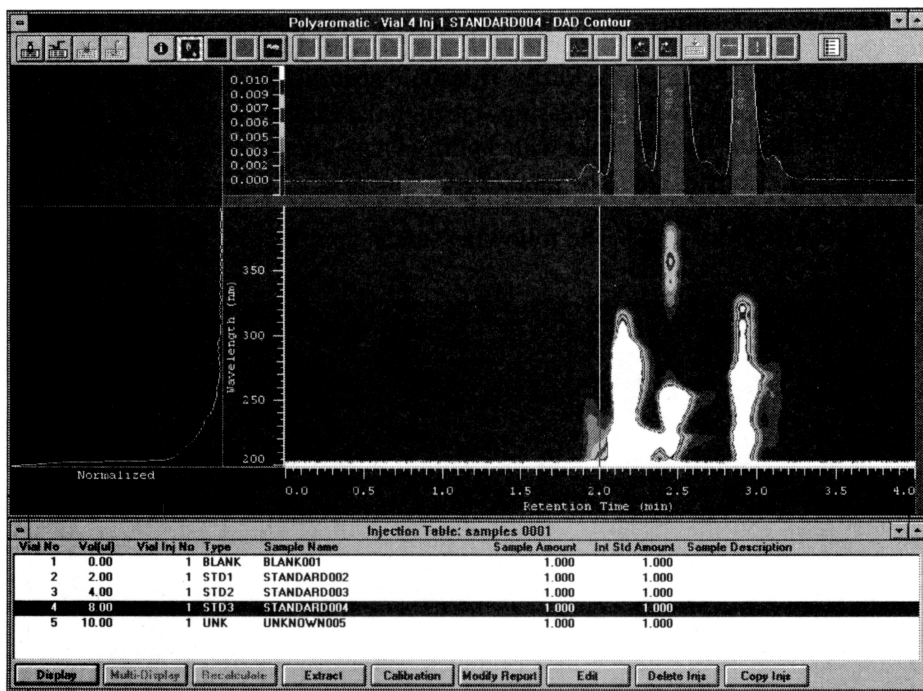
To save a Method:

From the **File** menu, select **Save Method**.



3.7.8 Checking Peak Purity


1. Select **Purity Check** from the **ProcessData** menu to perform a peak purity check on the chromatogram selected by the horizontal cursor on the Contour map.

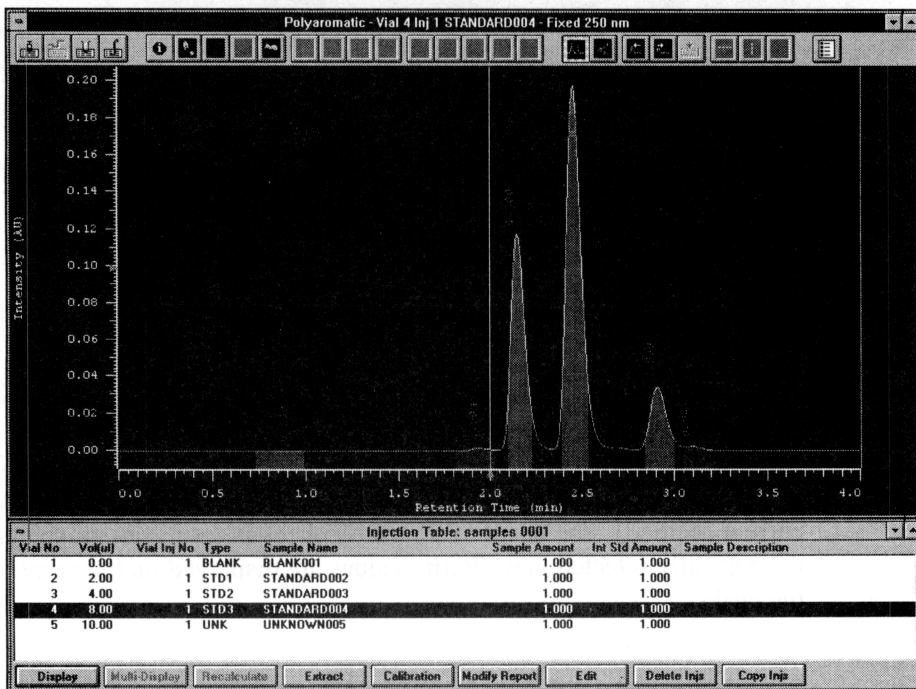


The HSM performs Peak Purity calculation for all peaks above the Peak Rejection Level (defined in Chromatogram Display Format screen of the current Method). The result of the purity check is displayed graphically on the currently selected view. Purity values are displayed on the graph near the peaks.

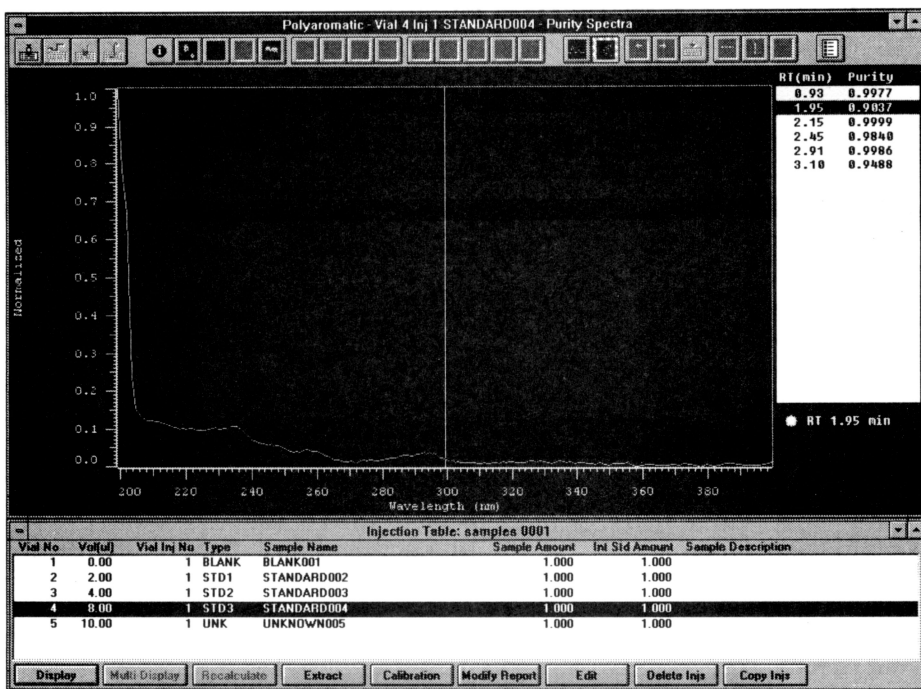
Note: For a DAD data display when Purity Display mode is activated, the horizontal cursor line on the Contour view is disabled and the vertical cursor line can only be placed on the nearest peak top. Accordingly, the Unprocessed Chromatogram view and other types of chromatogram-setting commands and icons are disabled as well.

The HSM uses the Purity Threshold specified in the Purity Check section of the DAD Data Processing screen in the Method to decide whether the peak is pure. Those peaks with a purity value greater than the specified threshold are considered to be pure.

- Click on . The following screen appears



3. Click on . The **Purity** spectra screen appears.

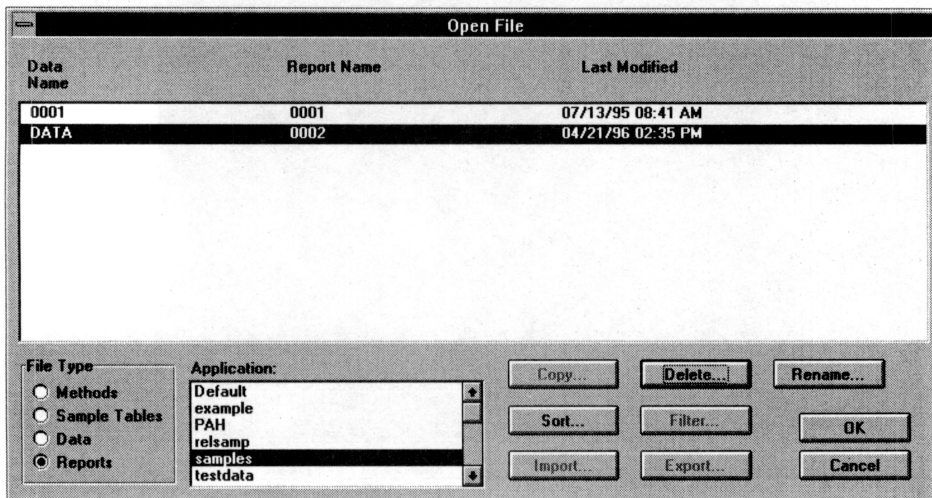


A set of spectra extracted from a peak are displayed including spectra from the top, and left and right sides of the peak. The two side spectra displayed in the window are the ones used to compute peak purity. The command is available only when Chromatogram is the selected view and the displayed data is of DAD type or Extracted Chrom type.

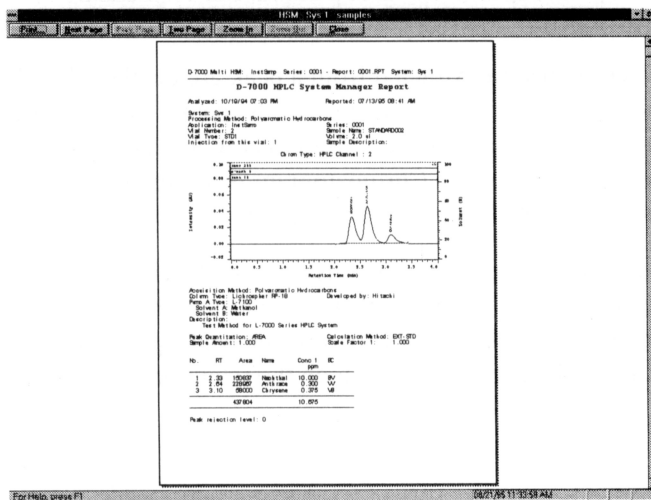
The window appears with a list box on the right side that lists all the detected peaks by their retention times and the corresponding purity values. You can use this window to view the peak spectra for each detected peaks. This can be done by clicking on the retention time from the list box.

3.8 Viewing and Printing a Report

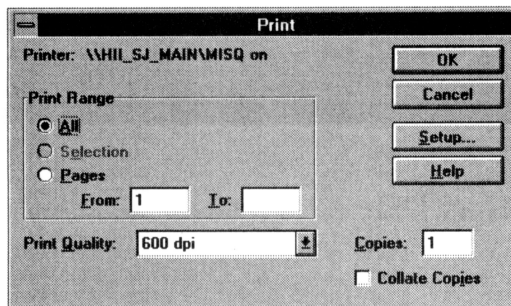
1. Click on . The Open File dialog appears.



2. Select **0001** and click on **OK**. The print preview screen appears.



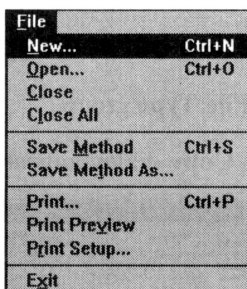
3. Select **Print**. The **Print** dialog appears.



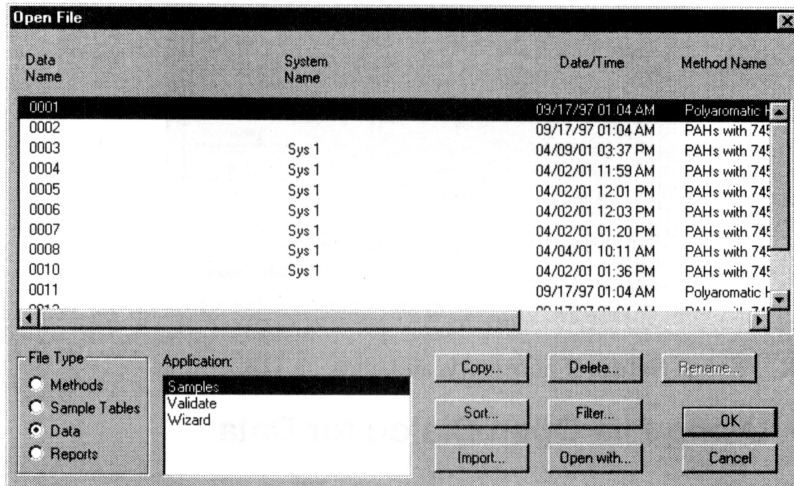
4. Select **Setup**, if necessary, and click on **OK**.

3.9 Using File Open Dialog for Data

1. From the menu bar, select **File**. The **File** menu appears.

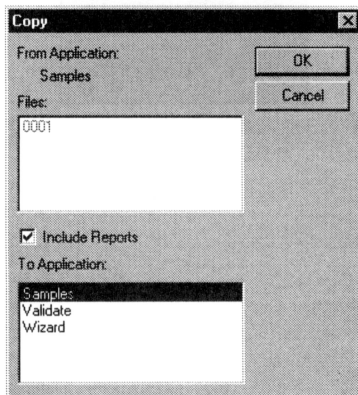


2. Select **Open**. The **Open File** dialog appears.



To copy file or data series between applications:

1. Check **Data** in the **File Type** group.
2. Click on **Copy**. The **Copy** dialog appears.



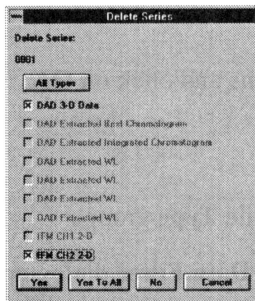
3. Click **Include Reports**.

4. Highlight the destination application in the **To Application** group and click on **OK**.

Note: The Injection Table for a data series is incorrect if the **Disk Full Error** message appears. You must either make more storage space available on the destination disk or use the **Copy Inj** function from the Injection Table.

To delete file or data series:

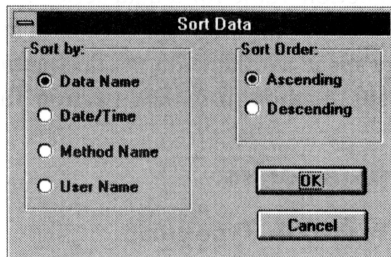
1. Check **Data** in the **File Type** group.
2. Click on **Delete**. The **Delete Series** dialog appears.



3. Check selections and click on **Yes** or **Yes to All**.

To sort files:

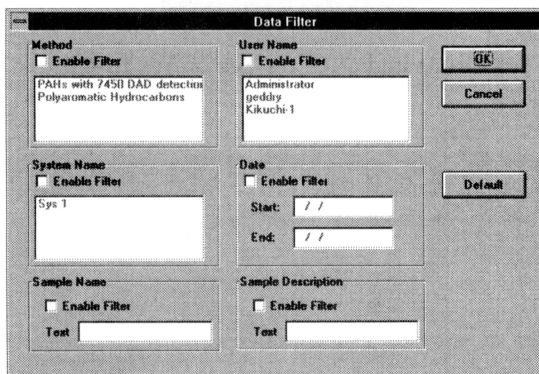
1. Click on **Sort**. The **Sort Data** dialog appears.



2. Check mark selections and click on **OK**.

To filter files:

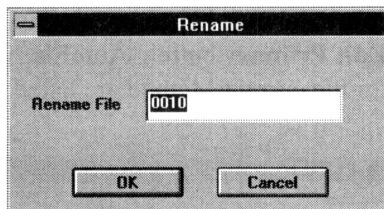
1. Check **Data** in the **File Type** group.
2. Click on **Filter**. The **Data Filter** dialog appears.



3. Set up filtering arguments and click on **OK**.

To rename data series (or report):

1. Check **Data** (or **Report**) in the **File Type** group.
2. Click on **Rename**. The **Rename** dialog appears:



3. Type a new name in the **Rename File** box and click on **OK**.

Note: If the file tracking for the application is turned on in the HSM Administration program and if you rename a generated report, the change will not be reflected to the audit log.

3.10 Modifying the Layout in the Method

Each Method has two layout templates (Primary and Secondary) that are used for formatting reports. These layouts are specific for each Method and they can be customized by using the **Report Layout Editor**.

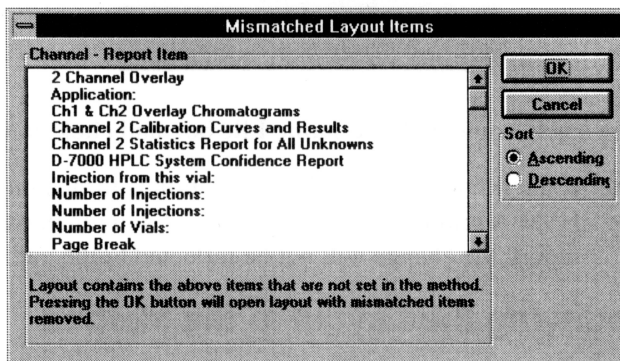
Note: If you save a new Method without using the Report Layout Editor, the primary and secondary layouts in the new Method are copied from a Standard master layout.

The examples that follow provide brief explanations of how to open the **Report Layout Editor** and how to add an item to a report layout. For more details regarding modifying layouts, refer to the D-7000 User Manual.

To open the Report Layout Editor:

Use the following procedure to open the **Report Layout Editor** from the Method:

1. From the **File** menu in the open Method window, select **Report Format**. When the **Report Format** screen opens, check the **Primary** box and then click on the **Edit Primary** button. Autofiltering occurs and items that are not suitable for the current Method are listed in the **Mismatched Layout Items** dialog.



2. On the **Mismatched Layout Items** dialog, click on **OK** to filter the mismatched items and the **Report Layout Editor** screen opens. Click on the **Injection** button from the **View Selection** panel. The display area on the **Report Layout Editor** screen shows a layout similar to the following:

D-7000 HPLC System Manager Report

| | |
|---|--------------------------------|
| Analyzed: XXXXXXXXXX | Reported: XXXXXXXXXX |
| Data Path: XXXXXXXXXX | Processed: XXXXXXXXXXXXXXXX |
| Processing Method: XXXXXXXXXXXXXXXXXXXXXXXXXXXX | |
| System (acquisition): XXXXXXXXXX | Series: XXXXXXXXXX |
| Application: XXXXXXXXXX | Sample Name: XXXXXXXXXX |
| Vial Number: XXXXXXXXXX | Volume: XXXXXXXXXX |
| Vial Type: XXXXX | Sample Description: XXXXXXXXXX |
| Injection from this vial: XXXXXXXXXX | |
| Absorbance Mode: XXXXXXXXXX | Absorbance Scale: XXXXXXXXXX |
| Spectral Bandwidth: XXXXXXXXXX | Spectral Interval: XXXXXXXXXX |

DAD Contour

To add a report item to a layout:

The following example describes how to add a text item to a layout. In general, the same procedure, can be used to add a graphic item or a table item to the layout.

1. Highlight **System (acquisition)** in the Report Items drop-down list. Hold down the left mouse button and drag the item to the top, left corner in the display area. When the popup menu appears, click on **Move Here**. A framed text box appears in the layout.

2. To reposition the text frame at some other point in the display area, place the cursor on the frame outline and hold down the left mouse button. When the cursor symbol changes, drag the symbol to the new position and release the button. Then, click on **Move Here**.

When a framed item is dropped into position on top of another item in the layout, the popup menu displays the following options: **Above, Below, Right, Left, and Cancel**. Click on the option that will position the item appropriately.

You can also position an item using commands from the **Edit** menu. For example, to center a frame horizontally in the display area, select the item and then select **Center Horizontal** from the **Edit** menu (or click on the Toolbar icon). The frame automatically centers along the horizontal line.

3. To edit the **System (acquisition)** text item in the layout, place the cursor on the frame and click the right mouse button. The **System (acquisition)** text dialog appears. You can edit the text shown in the Prompt tab; for example, replace **System (acquisition)** with **My System** and click **OK**. Note that the message in the frame changes.
4. To change text font, click on the frame and select **Font** from the **Option** menu (or click on the Toolbar icon). The **Font** dialog appears. Change the font as desired and click **OK**.

3.11 Modifying Report in Process Data Mode

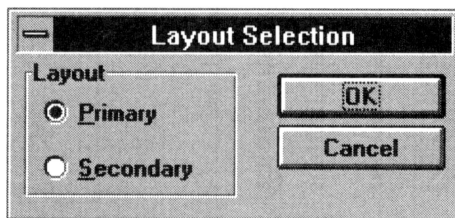
In the Process Data mode you can view the report that has just been generated by reprocessing and, if necessary, change it. This can be accomplished by modifying data processing/data display parameters of the open Method directly or via data processing screens, and also by modifying the report layout in the Method. The modified report can then be generated by doing a recalculation.

The examples that follow provide brief explanations of (1) how to view the report, (2) how to modify data processing/data display parameters, (3) how to modify data processing/display parameters of the open Method directly or via a data processing screens, and (4) how to modify the report layout in the Method.

(1) To view a report:

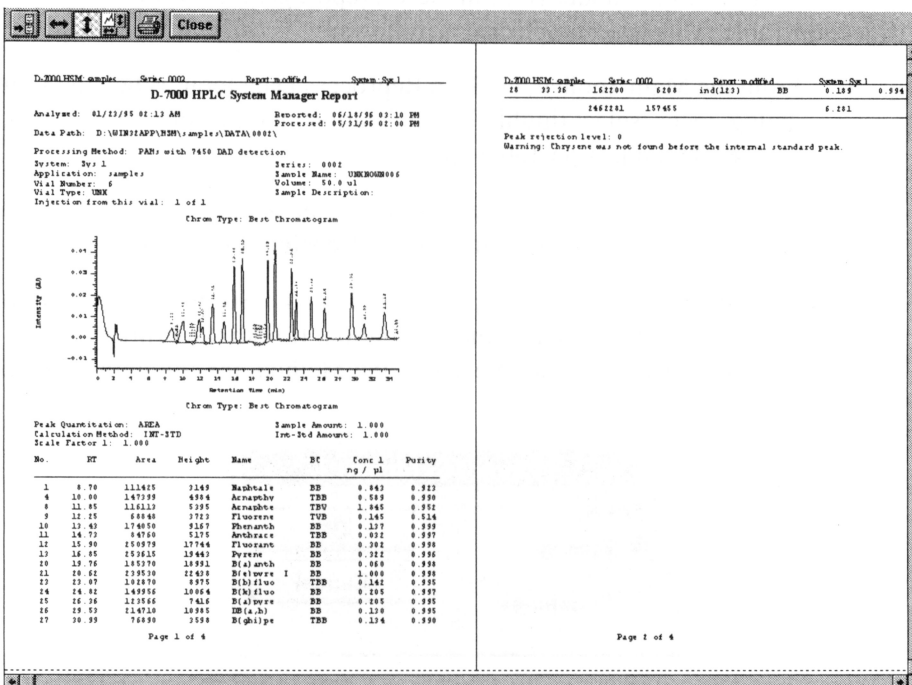
In the Data Processing mode, you can view a report generated for the opening Injection Table. This is accomplished as follows:

1. From the Main Toolbar, click on Reprocess Data Icon. When the **Open File** dialog opens, select (highlight) application and injection series; then, click on **OK**. The Injection Table opens.
2. Highlight the injections to be processed. Check the desired channel from the floating toolbox and then click on the **Recalculate** button.
3. After the calculation is complete, check on the **Modify Report** button to view the report created by the calculation. If both the Primary and Secondary layouts were selected in the Method, the following **Layout Selection** dialog appears:



If only one layout is selected, the dialog does not appear. Choose either **Primary** or **Secondary**.

When you click on **OK**, the **Modify Report** screen opens with a view of a report similar to the following:



(2) To modify data processing/display parameters of open Method via data processing screen:

The following steps provide an example of how to make changes to data processing or data display parameters in order to correct the report:

1. Double-click on a graphic item previewed on the **Modify Report** screen. The HSM minimizes the **Modify Report** screen and opens the Process Data display screen for that item. (For example, if you double-click on a chromatogram viewed on the screen, that screen is minimized and the Chromatogram Display screen opens.)

2. Change data processing or data display parameters. For example, open the **Display Options** dialog and make some changes. Update the Method by clicking the **Update Method** button. Then, click **OK**.
3. Return to the **Injection Table** and click on the **Recalculate** button. It is always necessary to recalculate after modifying any processing method parameters. If the **Recalculate** button is disabled, it is because one of the following conditions exists on the floating toolbar: DAD data is checked, both DAD data and DAD Extract Chroms are checked, more than one Extract Chrom type is checked, or nothing is checked. When you correct the condition, the **Recalculate** button should be enabled.
4. After recalculation is complete, click on the **Modify Report** button. The modification in the report can be viewed by opening (maximizing) the modified report screen.

(3) To modify the Method:

The following steps provide an example of how to modify the report by making changes to the Method.

1. From the **Options** menu of the **Modify Report** screen, select **Modify method** (or click the right mouse button and select **Modify Method** when the popup menu opens). The **Modify Report** screen closes and the HSM opens the current Method.
2. Change Method parameters, as desired, and update the Method by clicking the broadcast button (or by selecting **Save Method** from the **File** menu).
3. Return to the **Injection Table** and click on the **Recalculate** button. It is always necessary to recalculate after modifying the Method. If the **Recalculate** button is disabled, it is because one of the following conditions exists on the floating toolbar: DAD data is checked, both DAD data and DAD Extract Chroms are checked, more than one Extract Chrom type is checked, or nothing is checked. When you correct the condition, the **Recalculate** button should be enabled.

4. After calculation is complete, click on the **Modify Report** button. When the Modify Report screen appears, note that the Method changes are reflected in the report preview.

(4) To modify method layout:

1. From the **Options** menu of the **Modify Report** screen, select **Modify method layout** (or click the right mouse button and select **Modify Method Layout** from the popup menu that appears).
2. When the **Mismatched Layout Items** dialog, click on **OK**. The **Modify Report** screen closes and the **Report Layout Editor** screen opens with a display of the layout.
3. Change layout parameters, as desired, and update the Method by clicking the **Close** button on the menu bar of the **Report Layout Editor** screen.
4. When the program returns to the **Injection Table**, click on the **Recalculate** button. It is always necessary to recalculate after modifying the Method. If the **Recalculate** button is disabled, it is because one of the following conditions exists on the floating toolbar: DAD data is checked, both DAD data and DAD Extract Chroms are checked, more than one Extract Chrom type is checked, or nothing is checked. When you correct the condition, the **Recalculate** button should be enabled.
5. After calculation is complete, click on the **Modify Report** button. When the **Modify Report** screen appears, note that the layout changes are reflected in the report preview.

4 Using Sample Wizard

This section describes how to use the Sample Wizard to prepare samples for the D-7000 HSM. The information is presented in the following order:


- Section 4.1, Opening an Existing Sample Procedure File
- Section 4.2, Creating a New Sample Procedure
- Section 4.3, Appending Samples to Sample Table
- Section 4.4, Creating Sample Wizard Table in Report
- Section 4.5, Additional Functions

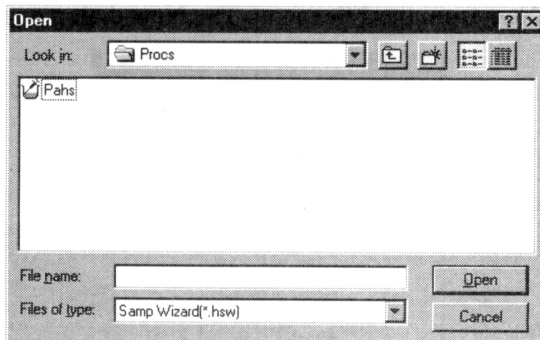
Note: To use the Sample Wizard program, you need to install additional software programs (MS XML 3.0 and DAO) after installing the HSM program. Refer to the *D-7000 HPLC System Manager Installation Manual* for the installation procedures.

4.1 Opening an Existing Sample Procedure File

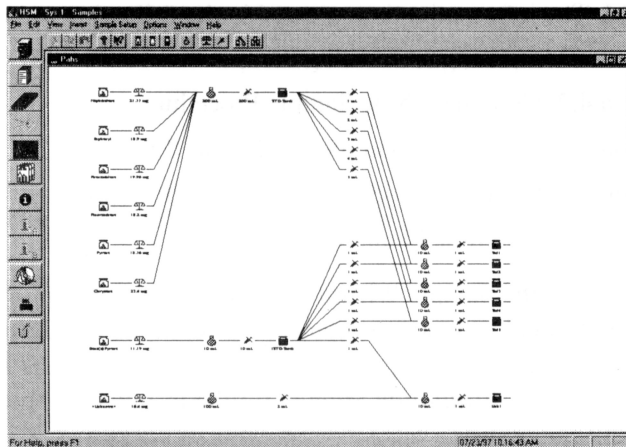
Use the following procedure to open an existing sample procedure file that was created using the Sample Wizard.

To open an existing Sample Wizard file:

1. Launch the D-7000 HSM.
2. Select **Open Sample Wizard** from the **File** menu (or click ). The **Open** dialog appears. The file type for a Sample Wizard procedure is *.hsw.



3. In the list box, choose (highlight) Sample Wizard file, **Pahs**, and click on **OK**. The Sample Wizard window opens with a diagram of the **Pahs** sample procedure shown in the display area.

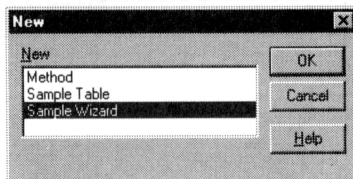


4.2 Creating a New Sample Procedure

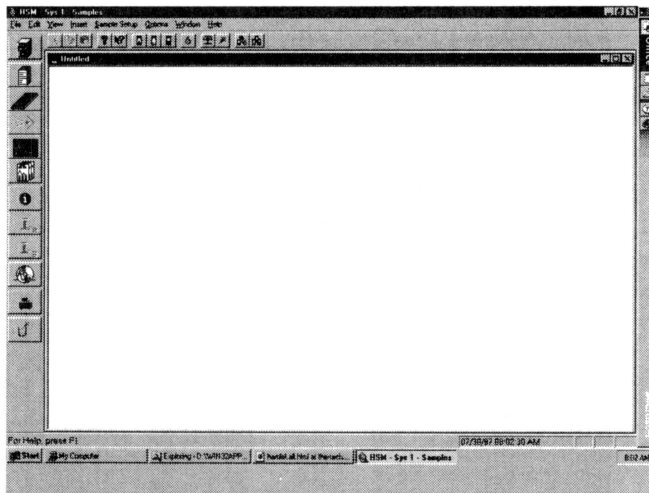
The basic steps in using the Sample Wizard to create a new sample procedure include opening a new Sample Wizard window, setting up initial parameters, and saving the new sample procedure.

To open a new Sample Wizard window:


1. Launch the D-7000 HSM.
2. Select **New** from the **File** menu. The **New** dialog opens.

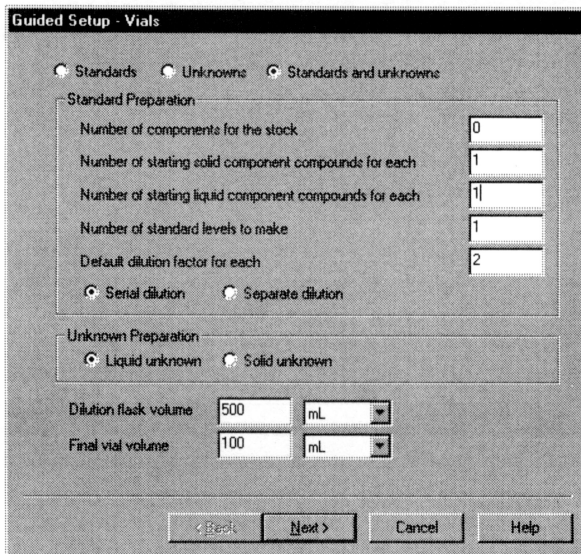


3. Highlight **Sample Wizard** and click on **OK**. An untitled Sample Wizard window opens with the following menu bar and tool bar (note that the graphic display area is blank).



To set up initial parameters:

1. Select **Guided Setup** from the **Sample Setup** menu (or click on ). The **Guided Setup - Vials** dialog opens.



Guided Setup - Vials

☐ Standards ☐ Unknowns ☒ Standards and unknowns

Standard Preparation

Number of components for the stock: 0

Number of starting solid component compounds for each: 1

Number of starting liquid component compounds for each: 1

Number of standard levels to make: 1

Default dilution factor for each: 2

☒ Serial dilution ☐ Separate dilution

Unknown Preparation

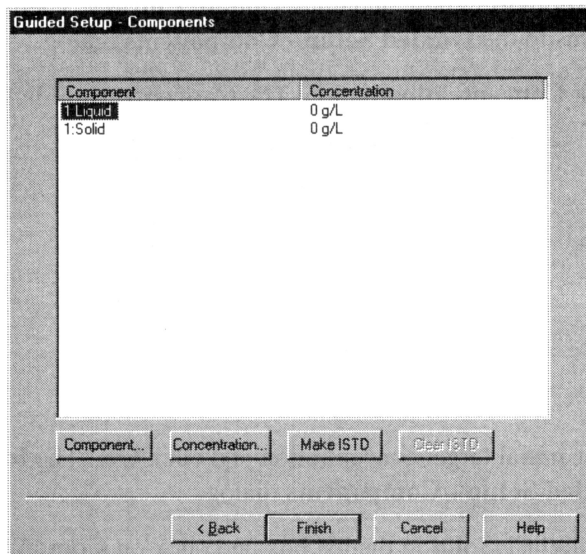
☒ Liquid unknown ☐ Solid unknown

Dilution flask volume: 500 mL

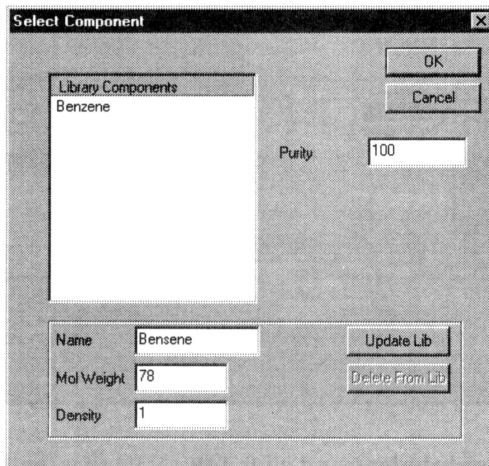
Final vial volume: 100 mL

< Back Next > Cancel Help

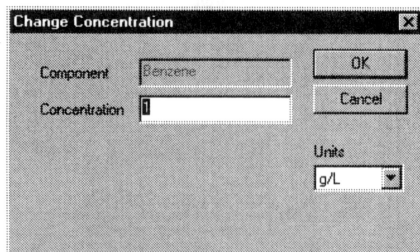
2. Set up parameters as shown on the **Guided Setup - Vials** dialog and click on **Next**. The **Guided Setup - Components** dialog opens.



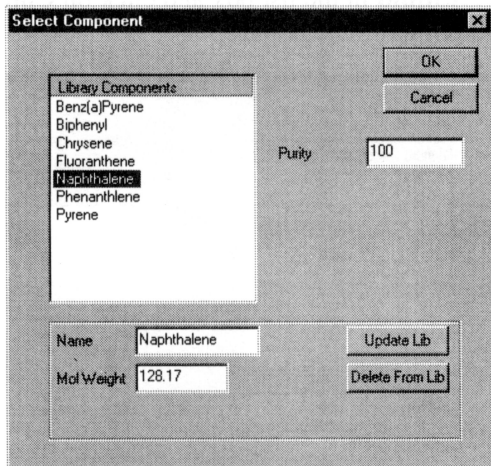
3. Highlight **1:Liquid** in the list box and click on **Component** button. The **Select Component** dialog opens.



4. Enter **Name**, **Mol Weight**, and **Density** of sample, as shown on the **Select Component** dialog, and click **Update Library**. Then, click **OK**. The focus returns to the **Guided Setup - Components** dialog.
5. Click **Concentration** button. The **Concentration** dialog opens.

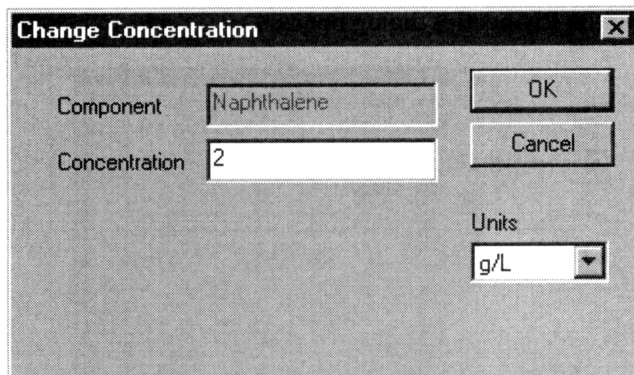


6. Enter initial target concentration and click **OK**. The focus returns to the **Guided Setup - Components** dialog.
7. Highlight **1:Solid** in the list box and click on **Component** button. The **Select Component** dialog reopens with a list from the solids library.



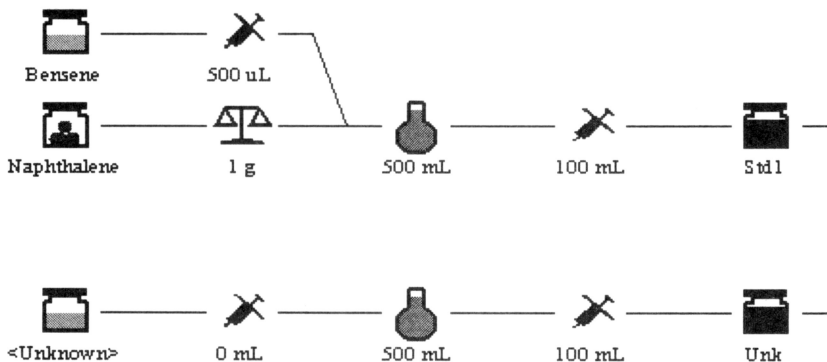
8. Select **Naphthalene** and click **OK**. Note that the focus returns to the **Guided Setup - Components** dialog.

9. Click **Concentration** button. The **Concentration** dialog opens.

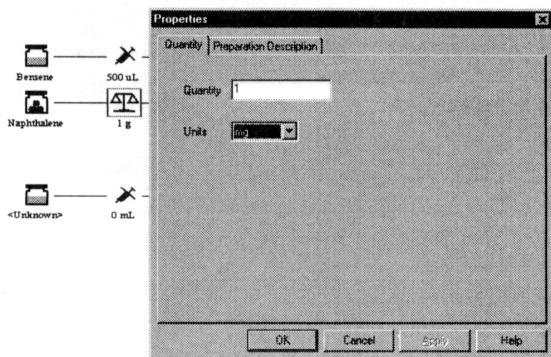


The **Change Concentration** dialog box is shown. It has a title bar with a close button (X). Inside, there are two input fields: **Component** with the text "Naphthalene" and **Concentration** with the value "2". To the right of these fields are two buttons: **OK** and **Cancel**. Below the **Concentration** field is a **Units** dropdown menu currently set to "g/L".

10. Enter initial target concentration, as shown, and click **OK**. The focus returns to the **Guided Setup - Components** dialog.
11. Click on **Finish**. The graphic diagram of the sample procedure set up under the guidance of the Sample Wizard is shown in the display area.



12. Double-click on a selected icon. For example, if you click on the **Balance** icon, the **Properties** dialog opens.



If necessary, you can focus on the **Quantity** tab to change the quantity and units. You can also focus on the **Preparation Description** tab to add more information about the balance such as, model name, last validate date (GLP), and sample preparation. For more information about modifying a sample procedure, see Section 4.5, Additional Functions.

To save Sample Wizard procedure:

1. Select **Save Sample Wizard As** from the **File** menu. The **Save As** dialog opens.
2. Enter name for file in the **File name** text box (e.g., **Training**), ensure that name in the **Save as type** list box is **Samp Wizard (*.hsw)**, and click **Save**

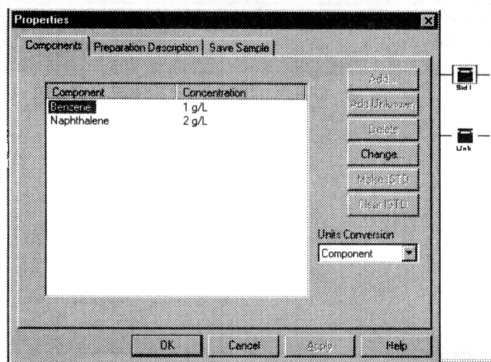


4.3 Appending Samples to Sample Table

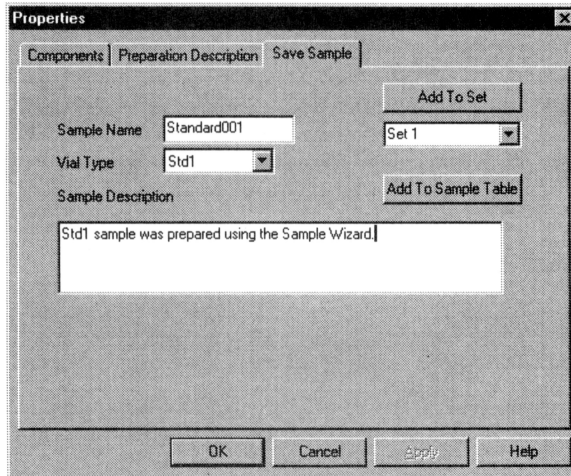
Use the following procedures to append samples **Std 1** and **Unk** that were set up previously in Section 4.2, Creating a New Sample Procedure to Sample Table.

To append Std 1 to Sample Table:

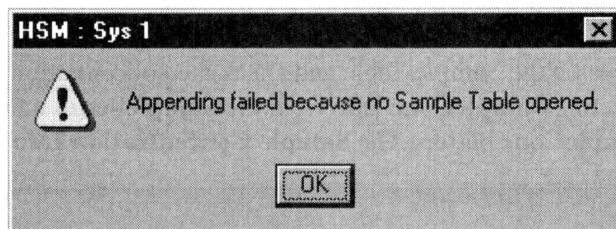
1. Double-click on **Std1** icon. The **Properties** dialog opens.



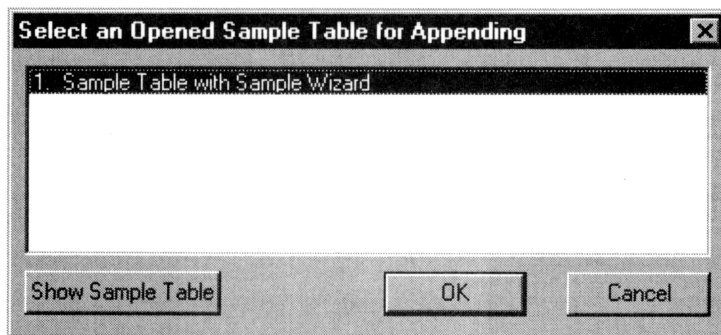
2. Focus on the **Save Sample** tab and type a sample name and a sample description in the text boxes.



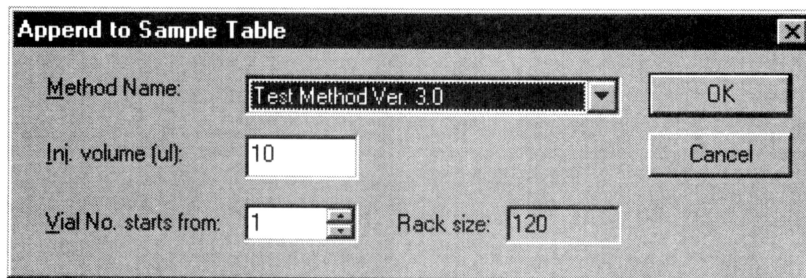
3. Click on **Add to Sample Table**. If Sample Table is not yet open, the following message box appears.



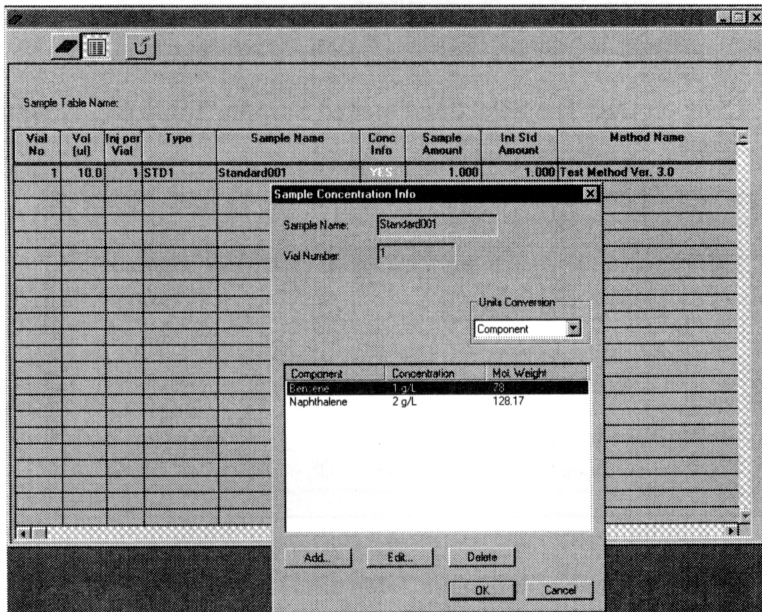
4. Click on **OK**. The **Select an Opened Sample Table for Appending** dialog opens.



5. Select the name of a Sample Table name in the list box and click on **OK**. The **Append to Sample Table** dialog opens.

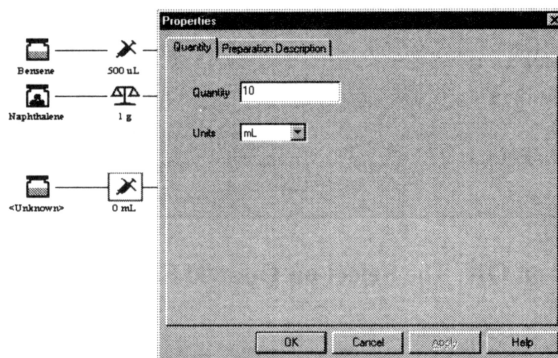


6. Enter information shown above into the **Method Name**, **Inj. volume [ul]**, and **Vial No. starts from** boxes and click **OK**. The sample is appended to Sample Table.
7. Focus on the Sample Table and check the concentration information by selecting **SampleConc Info** from the **SampleSetup** menu (or by clicking **SampleConc** button). The **Sample Concentration Info** dialog opens.

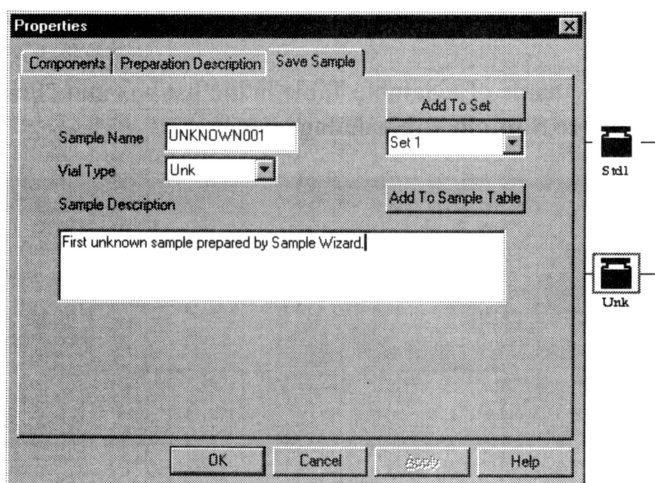


To append Unk 1 to Sample Table:

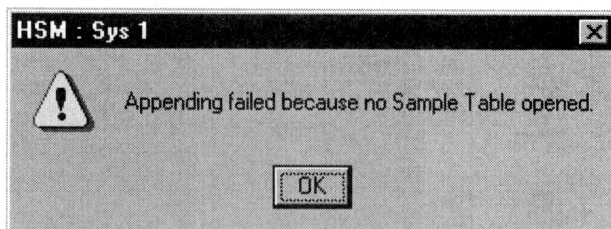
1. Double-click on the **Pipette** icon. The **Properties** dialog opens.



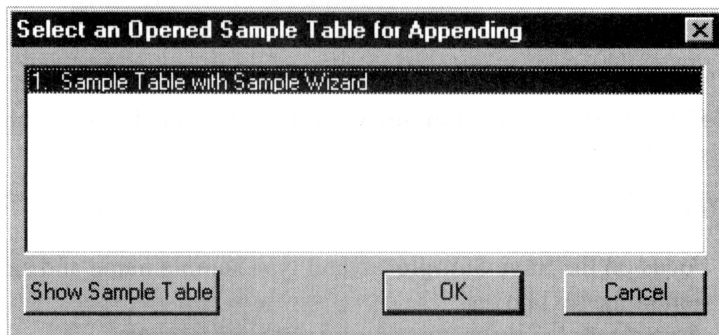
2. Enter quantity in the **Quantity** text box. Volume for a solid is weight measured by balance.
3. Double-click on Unk icon. The **Properties** dialog opens.
4. Focus on the **Save Sample** tab and type sample name and sample description in the text boxes.



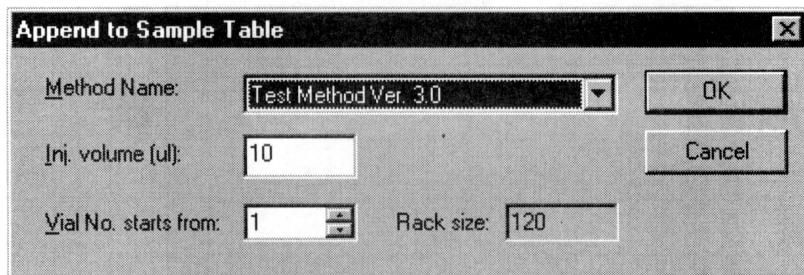
5. Click on **Add to Sample Table**. If Sample Table is not yet open, the following message box appears.



Click on **OK**. The **Select an Opened Sample Table for Appending** dialog opens.



6. Select the name of a Sample Table in the list box and click on **OK**. The **Append to Sample Table** dialog opens.




7. Enter information shown above into the **Method Name**, **Inj. volume [ul]**, and **Vial No. starts from** boxes and click **OK**. The sample is appended to the Sample Table.
8. Focus on the Sample Table and check the concentration information by selecting **SampleConc Info** from the **SampleSetup** menu (or by clicking **SampleConc** button).The **Sample Concentration Info** dialog opens.

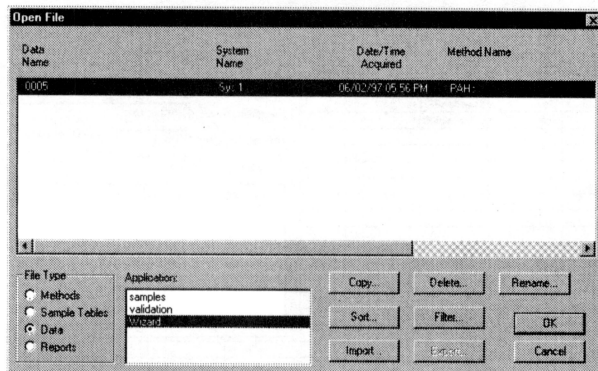
[illegible]

4.4 Creating Sample Wizard Table in Report

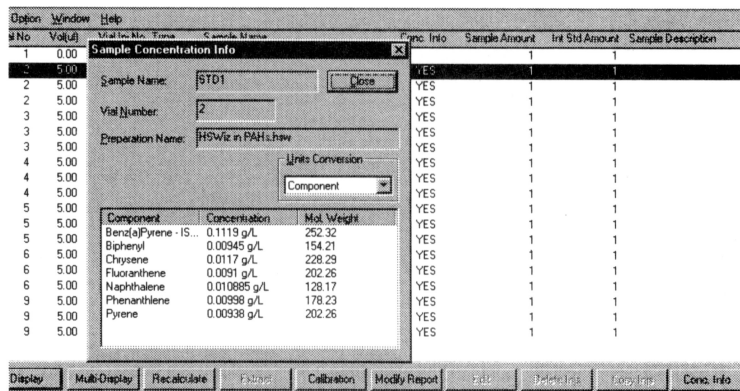
Creating a Sample Wizard Table in the report involves selecting a data series, setting parameters in the Method, using the Report Layout Editor, and then printing the report.

To select a data series:

1. On the main tool bar, click on . The **Open** dialog appears.

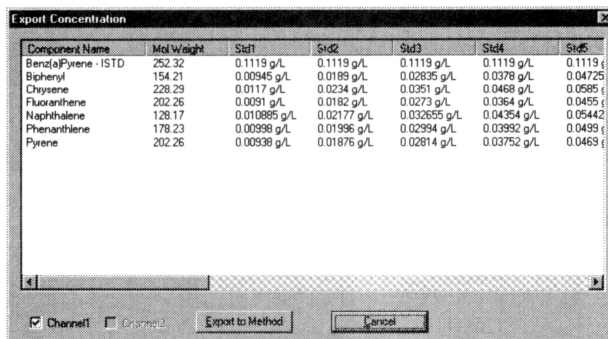


2. Select data series **0005** from the **Wizard** application and click **OK**. The **Injection Table** opens. Select (highlight) line with **Yes** in **Conc Info** column. Click on **Conc Info** button. The **Sample Concentration Info** dialog opens.



To copy sample concentration into Concentration Table:

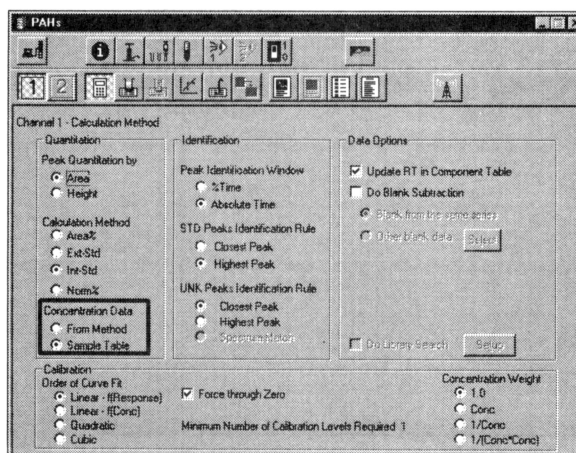
1. Select **Export Conc.** from the **Option** menu. The **Export Concentration** dialog opens.



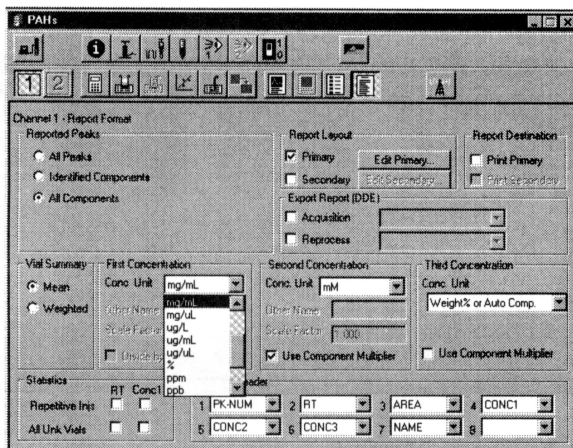
2. Click **Export to Method**.

To set up parameters in Method:

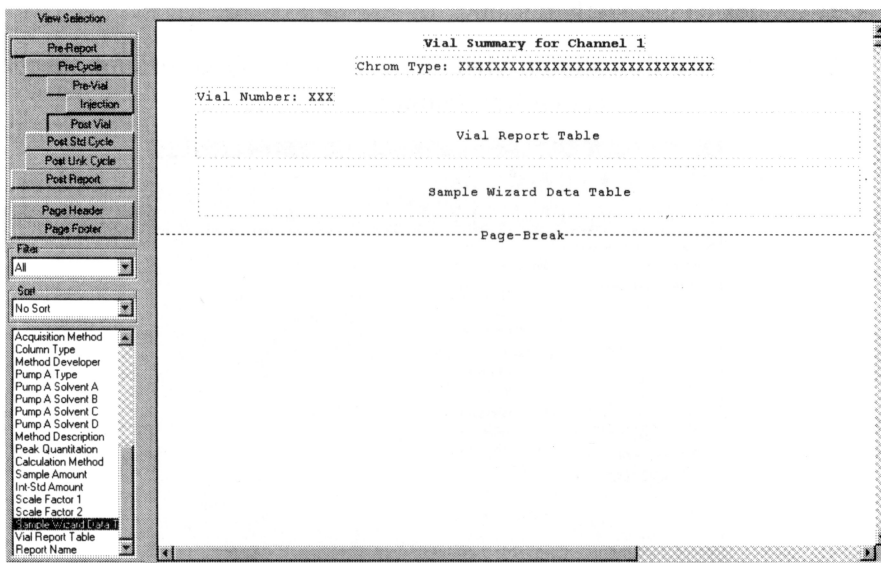
1. Click on the **Method** icon.
2. Select the **Calculation Method** screen. In the **Quantitation** function box, select **Concentration Data/Sample Table**



3. Focus on the **Report Format** Screen and select concentration units for **Conc1** and **Conc2**.



4. On the **Report Format** screen, click on **Edit Primary**. The **Layout Editor** opens.



5. Click **Post Vial** and select **Sample Wizard Data Table** from the Items list.

To print report:

1. Refocus on the Injection Table and select (highlight) Injection data to be calculated.
2. Click on the **Recalculate** button. When the report is printed, the Sample Wizard data printout shall appear similar to the following:?

| D7000 HPLC Wizard | | | | File: 1001 | Report no: 1001 | System: Ac 1 |
|----------------------------|-------|----------|----------|------------|-----------------|--------------|
| Vial Summary for Channel 1 | | | | | | |
| Chem Type: HPLC Channel 1 | | | | | | |
| Vial Number: 2 | | | | | | |
| Name | Area | Area | Area | Area | Area | Area |
| Area | Area | Area | Area | Area | Area | Area |
| Hydrochloride | 4.87 | 75565 | 75565 | 75565 | 75565 | 75565 |
| Biphenyl | 4.56 | 167688 | 167688 | 167688 | 167688 | 167688 |
| Phenanthrene | 5.40 | 89846 | 89846 | 89846 | 89846 | 89846 |
| Fluorenone | 6.81 | 246575 | 246575 | 246575 | 246575 | 246575 |
| Pyrene | 7.50 | 246575 | 246575 | 246575 | 246575 | 246575 |
| Chrysene | 8.17 | 658470 | 658470 | 658470 | 658470 | 658470 |
| Benzo(a)Pyrene 1 | 14.14 | 5.328466 | 5.328466 | 5.328466 | 5.328466 | 5.328466 |

| Vial | Vial | Sample | Component | Case | Net | Initial | Final |
|------|------|--------|----------------|----------|-----|----------|-------|
| No. | Type | Name | Name | | WT. | Quantity | Val. |
| 2 | REFL | REFL | Benzo(a)Pyrene | 0.1118 | g/g | 252.32 | |
| | | | Biphenyl | 0.00845 | g/g | 154.21 | |
| | | | Chrysene | 0.0117 | g/g | 228.28 | |
| | | | Fluorenone | 0.0081 | g/g | 202.24 | |
| | | | Hydrochloride | 0.010828 | g/g | 128.17 | |
| | | | Phenanthrene | 0.00888 | g/g | 178.21 | |
| | | | Pyrene | 0.00819 | g/g | 202.24 | |

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4.5 Additional Functions

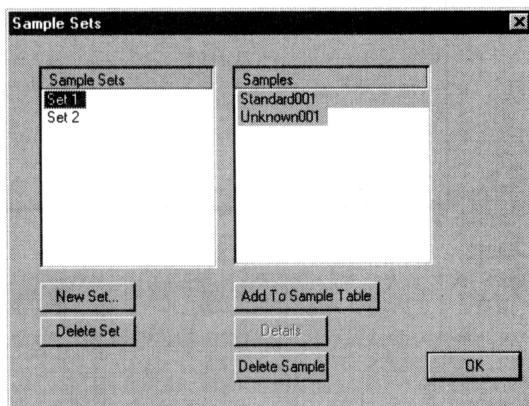
Additional functions include the following:

- See Appending Multiple Samples to Sample Table, Section 4.5.1.
- See Resizing View of the Graphic Diagram, Section 4.5.2.
- See Modifying Sample Procedure Diagram, Section 4.5.3.

4.5.1 Appending Multiple Samples to Sample Table

To append multiple samples to a Sample Table:

1. Launch the HSM and open a Sample Table. Refer to Section 4.3, Appending Samples to Sample Table.
2. Open the Sample Wizard and select **View Sample Sets** from the **Sample Setup** menu (or click on ). The **Sample Sets** dialog opens.



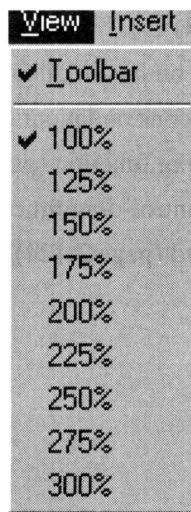
3. Select sample set from the **Sample Sets** list box (e.g., **Set 1**) and highlight samples in the **Samples** list box (e.g., **Standard001** and **Unknown001**).
4. Click on **Add to Sample Table**. The samples selected in the sample set are appended to the open Sample Table.

4.5.2 Resizing View of the Graphic Diagram

Use the following procedure to resize the graphic diagram displayed in the Sample Wizard window.

To resize diagram:

1. To resize the view of the sample procedure diagram, select the **View** menu.



2. When the **View** menu opens, select a magnification factor between **100%** and **300%**. The diagram is resized accordingly.

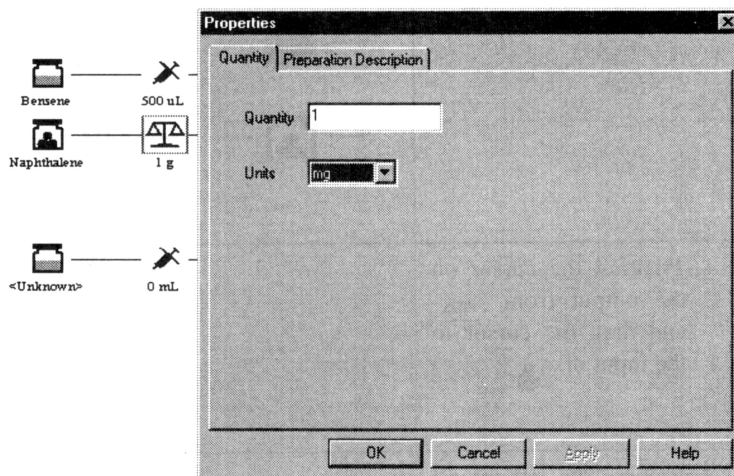
4.5.3 Modifying Sample Procedure Diagram

The following procedures can be used to modify or edit a sample procedure diagram.

- Modify parameters (page 2-121)
- Add a connector line (page 2-121)
- Delete a connector line (page 2-123)
- Label icons (page 2-123)
- Select contiguous icons on layout diagram (page 2-123)
- Select non-contiguous icons on layout diagram (page 2-123)
- Move icons using the drag function (page 2-124)
- Copy icons using the control-drag function (page 2-124)
- Cut/copy to the clipboard (page 2-124)

To modify parameters:



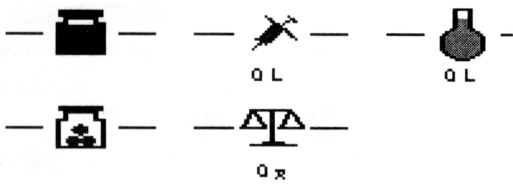




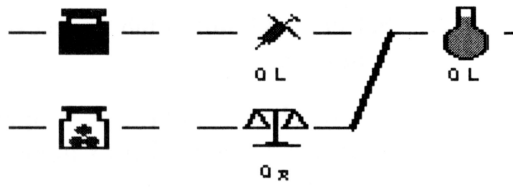
1. Double click on icons, one at a time. For example, double-click on the balance icon. The **Properties** dialog opens.



2. Select the **Quantity** tab. If necessary, change values in the **Quantity** and **Units** boxes.
3. Double click on **Std1** icon. **Properties** dialog opens. Select the **Components** tab. Open the **Unit Conversion** drop-down list and check that the concentration for each component is automatically converted.

To add a connector line:

Position the mouse cursor on the output from one icon and click and drag the cursor to the input to another icon.

| | |
|---|---|
| <p>Example: Connect output from  to input of  :</p> |  |
| <p>1. Position the cursor on the output from  and drag the cursor to the input of .</p> | |
| <p>2. Release the left mouse button. A line now connects the output from  to the input of .</p> |  |

To delete a connector line:

Click on the selected line and select **Delete** from the **Edit** menu (or press **Del** on the keyboard). The line is deleted.

To label icons:

A label is shown below each icon on the sample procedure diagram. If the source container contains only one component, the name of the component is used as the label (unless the container has been renamed). Labels can be changed by double-clicking on the container icon. This causes the **Properties** dialog to appear. Use this dialog to enter a new label or to modify other characteristics that are available as property options.

To select contiguous icons on layout diagram:

1. To select two or more icons, position the mouse pointer at point near the icons.
2. Click the left mouse button and hold it down while you drag a rectangle over the specified icons.
3. Release the mouse button. The icons within the rectangle are selected. This selection feature can be used with cut, copy, and move functions.

To select non-contiguous icons on layout diagram:

While holding down the **Ctrl** key, click on specific icons. As you click on each icon, it appears selected. This selection feature can be used with cut, copy, and move functions.

To move icons using the drag function:

1. Position mouse pointer over selected icon and hold down left mouse button. Drag the mouse pointer to the new destination point on the diagram.
2. Release the mouse button. The icon appears at the new destination with extended connector lines.

To copy icons using the control-drag function:

1. Hold down **Ctrl** key and, using the left mouse button and pointer, select icons.
2. Continue to hold down the **Ctrl** key and, using the left mouse button and pointer, drag the selected icons to a desired destination point on the diagram.
3. Release the left mouse button. Copies of the icons appear at the destination point designated by the mouse pointer.

To cut/copy to the clipboard:

You can cut or copy container icons (including labels and properties) and paste them to other parts of the same layout diagram (or to another layout diagram if more than one sample table is open).

1. Using the left mouse button, select one or more icons and cut or copy these icons to the clipboard using one of the following methods:
 - Open the **Edit** menu and select the **Cut** or **Copy** command. Then, focus on a layout screen and select the **Paste** command. The selected items appear on the layout diagram below the original layout.
 - Click on the right mouse button and select **Cut** or **Copy** from the floating menu that appears. Then, focus on a layout screen and select the **Paste** command from the **Edit** menu. The selected items appear on the layout diagram below the original layout.
2. Using the left mouse button, select and drag the pasted items to desired positions on the layout diagram.

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October 1, 2001

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